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The Structure of *The Passions of the Soul* and the Soul-Body Union

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The Passions of the Soul is perhaps the most impenetrable of Descartes's works. Whereas the *Discourse on the Method* and the *Meditations* have their own distinctive style to help propel us forward through their very dense and difficult content, and the *Principles of Philosophy* is supposed to be read like a novel at first,[1] the *Passions* is a dry read indeed. Part of the problem lies in the fact that it is written as a series of articles, but this cannot be all. The *Principles*, though it is written in a similar style, does have a more novelesque quality. It has a plot of sorts: we begin from the metaphysics and we are then shown just how a physics follows from it. How the work unfolds is a matter of some beauty, even if one wants to take issue with the details. The *Passions*, on the other hand, seems on its face more disjoint. Parts of the work do seem to hang together, and commentators have chosen bits and pieces to address various issues in Descartes's philosophy, but the principle uniting the work as a whole is elusive. My aim in this essay is to make some headway toward understanding the unity of *The Passions of the Soul*. My hope is that with this understanding we will be able to derive more joy from a reading of the *Passions*, just as wisdom, according to Descartes, enables us to derive joy from all the passions (AT, 11.488; CSM, 1.404, a.212).

I begin by raising a set of questions facing a reader trying to make sense of the structure of the *Passions* as a whole, and then I address these questions by explicating the argument informing the work. Drawing out this argument involves understanding the method of the *Passions*, and so we will need to consider just what Descartes means in claiming that he is treating the passions *en physicien*. Because I am interested in sketching the whole argument, I will not be able to pursue some interesting implications of particular points in the argument. However, there is one issue I will touch on. On the reading I propose here, the *Passions* is Descartes's considered attempt to explicate and defend as coherent his conception of the union of soul and body. Thus, I will conclude by briefly considering what insight into the ontological status of the soul-body union this understanding of the *Passions* as a whole affords us.

Questions About the Structure of the *Passions*

The *Passions* is divided into three parts. Part 1 (aa.1–50) is titled "About the Passions in General, and incidentally about the entire nature of man"; part 2 (aa.51–148) is titled "About the Number and Order of the Passions and the Explanation of the Six Primitives"; and part 3 (aa.149–212) is titled "About the Particular Passions." The first question we can ask is: How do these parts relate to one another? Is what Descartes says about the primitive passions meant to follow from what Descartes says in part 1? Are the particular passions detailed in part 3 meant to follow in some way from the primitive passions? One would like to say that one part follows from the other, but Descartes certainly does not make the connections between the parts explicit.

And perhaps related to these, insofar as we might want to think that there is one order unifying the whole work, we can ask a set of questions about the microstructure of the work: What explains the internal structure of each part? How does Descartes proceed in part 1 from a discussion of the respective functions of body and soul to a discussion of those states of mind caused by the body? Why are the primitive passions primitive? Why does the discussion of the primitive passions proceed in the order it does? And equally, is there a reason for the order of presentation and discussion of the particular passions in part 3?

There is another feature of the *Passions*, falling between these macro- and microstructural concerns, which demands explanation as well. Each of the parts of the work concludes with a foray into ethics. The first part concludes with some observations about strong and weak souls (aa.47–48) and about the possibilities for regulating the passions (aa.49–50). Part 2 concludes with a discussion of the regulation of desires and the exercise of virtue, again in conjunction with the regulation of the passions (aa.144–48). And part 3 both begins and ends with articles concerning the regulation of the passions, and indeed many articles include claims about the praise- or blameworthiness of the passions they concern. In the beginning, (aa.152–61), we get a discussion of generosity, that passion which is "the key to all the other virtues, and a general remedy for all the disorders of the passions" (AT, 11.454; CSM, 1.388, a.161). And article 211 provides us with an extended discussion of a "general remedy against the passions" (AT, 11.485; CSM, 1.403, a.211) to set up the concluding article in which Descartes claims that, despite the passions' excesses and other disorders, "all the good and evil of this life depends" on them alone (AT, 11.488; CSM, 1.404, a.212). So even though Descartes claims, in the second prefatory letter to the work, that he is not writing the *Passions* as a moral philosopher (AT, 11.326; CSM, 1.327, quoted in the next section), there is quite a bit of moral philosophy there, and at what are, at least formally, transitional moments. Any account of the structure of the work must be able to account for these forays into ethics at structurally key moments.

The Beginnings of Some Answers: The Method of the *Passions*

To begin to address these questions, it makes sense to consider Descartes's claim that his "intention was to explain the passions only as a natural philosopher [*en physicien*], and not as a rhetorician or even as a moral philosopher [*en philosophe moral*]" (ibid.). His self-described aim is thus not to instill certain passions in us, as a political speechwriter

might. Nor is it even to argue that we should cultivate in ourselves certain passions rather than others—to argue that some passions are virtuous while others are vicious—as a moralist would. Rather, he wants to explain the passions as would a physicist.

It is often thought that this remark reveals Descartes's intention to detail the physiology of the passions, and so the *Passions* has often been read as a principally biological work further promulgating the new mechanist physiology.[2] There is some support for this reading, as a good deal of the work is devoted to excruciating physiological detail. Indeed, Elizabeth, upon reading an earlier draft of the work, questions the empirical support for the microphysiological account Descartes provides.[3] But the work is titled "The Passions *of the Soul*" and its content does reflect its title. Descartes spends more time detailing the content of those thoughts which are passions than he does the physiology proper to them.

It seems that just as important as the observations he makes of the physical world, and of the workings of the human body in particular, is the method Descartes follows. For Descartes, the foundation of physics is metaphysics.[4] We do not arrive at scientific knowledge simply by inferring back to the causes from the observed effects. All observation can do is help "to direct our mind to a consideration of some effects rather than others from among the countless effects which we take to be producible from the selfsame causes" (AT, 8a.82; CSM, 1.249). Knowledge in physics is achieved demonstrating how the effects we observe follow from their causes, and ultimately from a set of first causes or principles. As Descartes writes in the preface to the French edition of the *Principles*, to achieve wisdom, or perfect knowledge, "we must start with the search for first causes or principles" and then set about "deducing from these principles the knowledge of things which depend on them" (AT, 9b.2; CSM, 1.179–80).[5] And, as he lays it out neatly in that preface, the first principle of all is the *cogito*—that even when I doubt everything I cannot doubt that I exist while I am doubting. From that follows the further principles that god exists as the "author of everything that is in the world" and is not a deceiver, and that "there are bodies which are extended in length, breadth and depth, and which have various shapes and move in various ways" (AT, 9b.10; CSM, 1.184), and from this set of principles we can, in his view, arrive at other principles and ultimately all we are capable of knowing.

The order of presentation of the *Principles*, Descartes's physics, clearly demonstrates this method at work. Part 1, as well as the first four articles of part 2, is devoted just to establishing the first principles that Descartes has outlined in the preface, and from there he goes on, in the rest of part 2, to arrive at what he takes to be further basic truths about the nature of extension and the laws of motion. Parts 3 and 4 are then devoted to working out, from these more basic principles of bodies, the details of the natural phenomena experience has drawn our attention to. Thus, the physics that Descartes presents in the *Principles* is distinctive, at least in part, in that it purports to show how the natural phenomena we observe follow from nothing but the nature of extension and the laws of motion, which themselves follow only from the nature of extension, completely distinct from thought and the nature of god. In this way, Descartes offers an explanation of physical phenomena from first principles.

Toward the end of part 4 of the *Principles*, Descartes outlines the evidence for his claim that "the soul's sensory awareness, via the nerves, of what happens to the individual limbs of the body does not come about in virtue of the soul's presence in the individual limbs, but simply in virtue of its presence in the brain" (AT, 8a.319; CSM, 1.283). In doing so, he jumps very quickly from discussion of the physical world to that of the human being which is not, for him, simply physical but rather a union of mind and body.[6] While certainly he has considered the nature of mind in part 1 and asserted that the "human body is closely conjoined with the mind" (AT, 8a.41; CSM, 1.224) in part 2, in his treatment of sensations in part 4 he does little to show how his conclusions about sensation follow from his principles.[7] If he is adhering to the method of the physicist here, it is in extending his analysis of the physical world to include the human body, whose workings he explains by appealing to bodily motions alone, and not by appeal to a soul which might inform that body. It does not seem that he adheres to that method particularly well in explicating the mental aspect of sensations and the way in which bodily motions bring about those mental states.

The order of presentation of the *Passions* suggests that in this work

Descartes is going to fulfill the promise of the end of the *Principles*. While Descartes does not rehearse the first two of his principles—the *cogito* and the nature and existence of god—at the beginning of the work, the *Passions* does begin by laying out a basic principle which relies on them—that of the distinction between mind and body. As the title of article 2 tells us: "in order to understand the passions of the soul we need to distinguish its functions from those of the body" (AT, 11.328; CSM, 1.328, a.2). The first half of part 1 is devoted to articulating this distinction. Articles 7 to 16 detail what Descartes calls the functions of the body, ranging from the maintaining of the heat in the heart which is the principle of life, to the movement of the muscles, to the motions of the animal spirits through the blood. All these workings of the body are explained solely by reference to the composition of the 'machine of our body'. The soul and its functions do not figure in its derivations. Articles 17 through 29 concern the functions of the soul, that is, our thoughts. And here Descartes provides us with a taxonomy of sorts: there are some thoughts which depend only on our soul, our volitions (though some may terminate in our body, they are actions of the soul, and so depend causally only on it), and those perceptions which have the soul as cause—our imaginations of fictional entities and our representation of volitions; and there are those thoughts which are caused by the body. It is the latter, and in particular a specific category of the latter—the passions properly speaking—which will concern Descartes in this work.

It thus seems that Descartes begins the *Passions* by laying out familiar first principles, that he is employing the method of the physicist, that he is, as he says, treating the passions *en physicien*. If he is to continue to follow this method in the rest of the work, then he should go on to explain the phenomena of the passions by the principles he has taken some pain to lay out in part 1. And indeed, part 2 should follow part 1, and part 3 should follow part 2. Equally, it would seem that the internal structures of each of those parts should proceed in the same fashion, following along the lines determined by those principles. It is still far from clear just how the parts of the work follow one another, but we at least have a path through which to pursue their relation to one another.

It might seem odd, however, to claim that an ethics figures in a derivation from basic principles concerning the nature of mind and that of body. Nevertheless, Descartes repeatedly maintains that the metaphysics and physics which form the basis of his philosophy should, if followed through, lead to a perfect morality. Most famously, in the preface to the French edition of the *Principles*, he compares philosophy to a tree:

> The whole of philosophy is like a tree. The roots are metaphysics, the trunk is physics, and the branches emerging from the trunk are the other sciences, which may be reduced to three principal ones, namely medicine, mechanics and morals. By 'morals' I understand the highest and most perfect moral system, which presupposes a complete knowledge of the other sciences and is the ultimate level of wisdom (AT, 9b.14; CSM, 1.186).

And Descartes also indicates elsewhere that he takes what he has to say about ethics to follow from his physics, (and so presumably from his metaphysics, since the physics follows from that).[8] And so it would seem that we have reason beyond the mere layout of the work to think the articles which deal with moral philosophy do figure in the development of *The Passions of the Soul*. Somehow they are supposed to follow from what has come before them, and presumably, where appropriate, serve as the basis for what comes after them. And again we are left with the question: How exactly is that supposed to work? How do the views on the regulation of the passions and the account of virtue related to it follow from the basic principles articulated in part 1? To address these questions, as well as those about the relation between the parts of the work, we need to return to part 1 of the *Passions* and the principles articulated therein.

BACK TO THE BASICS: THE FOUNDATIONAL PRINCIPLES IN PART ONE

As just noted, Descartes's discussion in the *Passions* essentially starts where those of the *Meditations* and the *Principles* leave off. The functions

proper to mind and body are distinct from one another. The function of mind is thought, whereas that of body is the motion of the parts of extended substance in accordance with their configuration relative to one another. Thought is not extended, and neither is matter in motion thinking. That established, Descartes turns his attention to those thoughts the soul has in virtue of its relation to the body: its passions.[9] The passions in the general sense include sensations of external objects, internal sensations, such as hunger and thirst, and the topic of the work, the passions in the special sense, which he defines as "perceptions, sensations or emotions of the soul which we refer [*qu'on raporte*] particuliarly to it, and which are caused, maintained and strengthened by some movement of the spirits" (AT, 11.349; CSM, 1.339).

Proceeding *en physicien*, Descartes must first explain how the soul has these thoughts from first principles. The account he offers here comes in two parts. First, Descartes specifies that soul and body are joined in a particular way. So, in articles 30–33 he writes:

> But in order to understand all these things more perfectly, we need to recognize that the soul is really joined to the whole body, and that we cannot properly say that it exists in any one part of the body to the exclusion of the others. . . . (AT, 9.351; CSM, 1.339, a.30)
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> We need to recognize also that although the soul is joined to the whole body, nevertheless there is a certain part of the body where it exercises its functions more particularly than in all the others. (AT, 11.351–52; CSM, 1.340, a.31)[10]

This part is, infamously, the pineal gland. In the next cluster of articles (aa.34–43), Descartes goes on to describe in more detail what sort of interaction this joining affords. The movement of the animal spirits causes a reorientation of the pineal gland which leads the soul to have the perceptions it does, and, in the case of the passions, the soul's feeling them further disposes it to "want the things for which they prepare the body" (AT, 11.359; CSM, 1.343, a.40). Equally, the soul can effect a reorientation of the gland which in turn has far-reaching effects within the body.[11]

It is worthwhile to note two things here. First, Descartes simply asserts that soul and body are conjoined. For him this is obvious.[12] And second, Descartes is at pains here to maintain the functional integrity

and independence of the soul and the body. On the one hand, he details the ways in which objects affect our physiology and how those physiological effects themselves have causal efficacy, causing bodily movements without any action of the soul (AT, 11.356–57 and CSM, 1.342, a.36; AT, 11.358 and CSM 342–43, a.38). On the other hand, he explicates how the soul manifests its power—its volitions—with respect to the body: "the activity of the soul consists entirely in the fact that simply by willing something it brings it about that the little gland to which it is closely joined moves in the manner required to produce the effect corresponding to this volition" (AT, 11.360; CSM, 1.343, a.41).[13] It thus seems that for Descartes, the soul's being joined to the body in this way, and their being able to act on one another in the way they do, is entirely commensurate with the principles of mind and body he has already outlined. There is, of course, the longstanding question of whether Descartes is entitled to claim that the distinct substances of mind and body are so joined such that they can affect one another, but here Descartes confidently asserts that they are so joined without concern for its consistency with his dualism.[14]

Even if we grant Descartes his claim that soul and body are joined in this way (as well as distinct), he has not explained the consistency of the causal relation between them.[15] While he has explained the capacity that soul and body have to affect one another, he has not accounted for the determinate way in which they do so. So as things stand at the end of article 43, we might well imagine a human being who felt her passions accidentally: upon being in a particular physiological state at one moment, she feels fear, and in that same physiological state at another moment, she feels joy. Equally, we might imagine that upon thinking a thought at one moment she moves her body in one way, and in thinking that sort of thought at another moment she moves it in another. That is, just by asserting that soul and body are joined such that they can affect one another, Descartes has not explained any regularity in the relationship between mental states and bodily states. Descartes, however, does think that there is a regularity in that relationship. While which thought a physiological state causes might vary from individual to individual, within a particular individual, a particular sort of physiological state brings about a particular sort of thought. This regularity is implicit in

the language of 'natural institution'. So, for instance, "merely by entering into these pores they produce in the gland a particular movement which is ordained by nature to make the soul feel this passion" (AT, 11.357; CSM, 1.342, a.36). And it is made explicit in the discussion of sensation at the end of the Meditation Six:

> It is quite clear from all this that, notwithstanding the immense goodness of God, the nature of man as a combination of mind and body is such that it is bound to mislead him from time to time. . . . This deception of the senses is natural, because a given motion in the brain *must always* produce the same sensation in the mind; and the origin of the motion in question is much more often going to be something which is hurting the foot, rather than something existing elsewhere. So it is reasonable that this motion should *always* indicate to the mind a pain in the foot rather than in any other part of the body. Again, dryness of the throat may sometimes arise not, as it normally does, from the fact that a drink is necessary to the health of the body, but from some quite opposite cause, as happens in the case of the man with dropsy. Yet it is much better that it should mislead on this occasion than that it should always mislead when the body is in good health. And the same goes for other cases. (AT, 7.88–89; CSM, 2.61; emphasis mine)

The second part of Descartes's account of how it is possible for the soul to have thoughts in virtue of its relation to the body consists in the explanation of this regularity of the connection between soul and body.[16]

In order to understand the passions as mental states caused by the body in a regular way, for Descartes, we need an explanation beyond the mere joining of soul and body such that they can affect one another. To explain the regularity with which our bodily states engender thoughts (and our thoughts engender bodily movements), Descartes asserts the following, the title to article 44: "That each volition is naturally joined to some movement of the gland, but that by artifice [*industrie*] or habituation one can join it to others" (AT, 11.361; CSM, 1.344).[17] Here Descartes subtly moves beyond the account he gave in article 34 and following. Why is it that a sort of movement of the pineal gland causes the particular sort of thought it does, (and vice versa)?

Because each sort of thought is joined either by nature or by artifice or habituation with a particular movement of the gland.

This second explanation is clearly central to Descartes's account of the passions, for he invokes it again and again in the work, almost as a refrain. Descartes repeats it in article 50 to explain both why we are given to certain feelings and our ability to train ourselves to feel otherwise.

> It is useful to note here, as already mentioned above [a.41], that although nature seems to have joined every movement of the gland to certain of our thoughts from the beginning of our life, yet we may join them to others through habituation. (AT, 11.368; CSM, 1.348, a.50).[18]

And he invokes it again in article 107:

> I derive an explanation for all this from what I said previously, namely that our soul and our body are so linked that once we have joined some bodily action with a certain thought, the one does not occur afterwards without the other occurring too. (AT, 11.407; CSM, 1.365, a.107).

And also in article 136:

> For the rest, so as to put in a few words all the points that might be added regarding the different effects or different causes of the passions, I shall content myself with repeating *the principle which underlies everything I have written about them*—namely that our soul and body are so linked that once we have joined some bodily action with a certain thought, the one does not occur thereafter without the other occurring too; but we do not always join the same actions to the same thoughts. (AT, 11.428; CSM, 1.375, a.136, emphasis mine)

The centrality of this explanation suggests that the principal concern of the *Passions* is to develop and defend this account of the regularity of causal relation between mind and body.[19] Descartes is simply using the case of the passions in the special sense to do so. Moreover, it should be clear from Descartes's language when he invokes this explanation that he takes it to be of a part with the method of the physicist. Notice that

in article 107 Descartes claims that what has come before—the specification of the physiology proper to each passion—has been *deduced* from this account of the causal connection between the soul and the body. For the physicist, then, this explanation seems to have the status of a basic principle: that from which other claims follow.[20] And indeed, in article 136 Descartes makes this elevation explicit, for there he actually calls it a principle. So, that thoughts and motions of the pineal gland are associated in a determinate way in virtue of being joined either by nature or by habituation is a basic principle from which Descartes claims an understanding of the passions follows. Let us call it the Principle of Nature and Habituation (PNH).[21]

We clearly need to examine just how Descartes carries out this project. The first step in this examination is arriving at a clearer understanding of PNH itself. Before turning to do this, however, I want to draw attention to some problems on the face of PNH. For one, we want an explication of PNH to avoid these problems. And second, some of Descartes's efforts to avoid these problems, I will claim, are contained within the forays into ethics at the end of each part of the *Passions*. Thus, getting clear on these problems can help us to understand the structure of the *Passions*.

Many interpreters, for both good textual and philosophical reasons, have taken the natural joining, or as it is more commonly referred to, natural institution, to consist simply in the particular mental and physical states' standing in the causal relation to one another they do.[22] That relation itself remains unanalyzed and unexplained. If this is how we are to read 'natural joining' here, PNH is puzzling if not perverse. For one, the first half of the principle asserts that particular mental states and physiological states are naturally joined. Thus, on this standard reading, if PNH is to explain the regularity of the relation between mental and physical states, as I am arguing it does, then that explanation would be empty if not question begging. However, even if we grant Descartes this point there are still problems. For PNH is also puzzling in that it seems to suggest that we can change these causal relations. If this is so, it would seem to undermine just what it aims to explain. In addition, it is often assumed, again with good reason, that the associations between mental and physical states are instituted by god. While

god could certainly have arranged things otherwise, we cannot hope to understand god's purposes for arranging things the way he did. Thus, claiming that we can change the natural relations between mental and physical states seems odd in another way. For if these natural relations are indeed god-given for reasons unknowable to us, for us to second guess god's reasons for arranging things the way they are seems like a willful deviation from our nature if not outright heretical.[23] Thus, if we do understand 'natural joining' on the standard line it seems quite problematic to maintain that we can change these natural relations between mental or physical states by artifice or habit. So not only do we need to understand Descartes's explanation, and how it accounts for what he claims about the passions, we also should want to do so in such a way as to avoid these problems.

Descartes begins to resolve these apparent problems with PNH in the articles which immediately follow his first statement of that principle in article 44, for he there proceeds to clarify just what he means by "by artifice or habituation one can join it to others." He does so by considering the regulation of the passions, or as he puts it in the title to article 45, "the power of the soul with respect to its passions" (AT, 11.362; CSM, 1.345, a.45). As Descartes sees it, the power the soul has in this regard is just that which it has through artifice and habituation. Descartes's account of the regulation of the passions, and with it his resolution of the apparent problems with PNH will not be complete until the end of the work. Since I am concerned here to lay out the structure of the *Passions* here, I follow the order of the work. The full picture of PNH will not be in place until I have laid out all of Descartes' argument.

In articles 45–46, Descartes outlines one way we can regulate our passions: through a kind of technique informed by proper judgement, or what Descartes terms in article 48 the soul's "proper weapons . . . [or] firm and determinate judgements bearing upon the knowledge of good and evil" (AT, 11.367; CSM, 1.347, a.48).[24] It might seem odd to refer to a matter of proper judgement as a technique, but that it is a kind of technique becomes clear once one considers just in what this method for gaining power over our passions consists. For Descartes, regulating our passions is not simply a matter of correcting our judg-

ments about things. We cannot simply will ourselves to feel differently than we naturally do (a.45). So having a thought that I am safe, say, instead of in danger is on its own not enough to make my fear go away. Fear has a physiological cause which we cannot simply will away; so long as we are physiologically affected in that way, we will feel fear. We need to attend to 'reasons, objects and precedents'[25] which lead us to feel otherwise just by affecting us physiologically. Our thoughts of our safety are, it seems, themselves associated with a particular sort of physiological state, and so thinking those contravening thoughts engenders a shift in the pineal gland. This shift in the gland's orientation in turn alters our physiological state, and in doing so it quells our passion. Of course, the effectiveness of thinking of other things will depend on how stirred up we are. Sometimes, the force of the physiological counterpart to our thoughts of 'reasons, objects, and precedents' will not be strong enough to dampen our passions. Then, says Descartes, the best we can do is to assert our will so that we refrain from acting in the way our passions incline us. We still feel fear, say, but we will ourselves to stay put and face the danger rather than run away.[26] But the effectiveness of this strategy for regulating our passions also depends on how well we can manipulate our physiology, that is by how well we understand the relations between thoughts and bodily states. It is for this reason that this way of regulating the passions is a kind of technique. And it is also for this reason that we might think of it as an artifice. Although the physiological state we are in causes us to have one thought, we then from that thought direct our thoughts to other matters. In this way, we move from the thought which comes naturally to us, to another thought of our own design.

This redirection of our thoughts can then become a matter of habit, as Descartes notes in article 50. He begins the article by reiterating PNH, this time with a focus on habituation, and then moves on to claim that the devices we employ to control our passions can become habits, so that whenever we feel a passion we very quickly move to having those other thoughts we employ to control it.[27] But in this article Descartes goes on to make a second point:

> It is also useful to note that although the movements (both of the gland and of the spirits and the brain) which represent certain objects to the soul are naturally joined to the movements which produce certain passions in it, yet through habit the former can be separated from the latter and joined to others which are very different. (AT, 11.369; CSM, 1.348, a.50)

While it might seem that Descartes is here talking about changing the relation between two different aspects of our physiology, he is better read as suggesting that we can also come to feel different passions in being confronted with things by in some way changing the way in which we are directly affected by things: we will surely still sense the same things, but those things will move us differently, make us feel different passions immediately and not through any cognitive technique. That this is the proper reading is clear from his discussion of the acquisition of language in article 44. The movements of our mouths in uttering words is naturally joined with the will to make those movements, but a fluent speaker will have joined her thoughts directly with the movements through which we utter the words needed to convey them, rather than simply associating those thoughts with the will to move her mouth. Thus, "when we speak, we think only of the meaning of what we want to say, and this makes us move our tongue and lips much more readily and effectively than if we thought of moving them in all the ways required for uttering the same words" (AT, 11.362; CSM, 1.344, a.44).

At this point we can begin to see how Descartes might in part resolve at least one of the problems PNH faces. For through the method of artifice we might well change how we are feeling without disrupting the determinate relations between physiological state and thought. Our being in a sort of physiological state still, through the natural relation in which it stands to it, regularly causes a sort of thought, but we need not rest in that thought. We can move on to another thought, and indeed form habits of association between our original thought and that other thought so that we effectively have quite a different thought than that which we naturally have when in a certain sort of physiological state. However, the relation between our original thought and that sort of physiological state remains intact.[28] While the method of regulating our passions through artifice does provide us with a way of undertanding

how Descartes can consistently maintain that thoughts stand in a regular relation to physiological states and that we can change the relation between thought and physiology, two questions still remain. First, even with regards to the method of artifice, there is the question of why we should be entitled to change that which god has naturally given us. And second, the second sort of habituation Descartes outlines, through which we can change even the natural relations between thought and physiological state, faces both problems on the face of PNH. For insofar as we can change the natural mind-body relations, the explanatory point of PNH seems to be undermined, and again we seem to be in danger of violating god-given psychophysical laws.

So concludes part 1 of *The Passions of the Soul*. In it, Descartes not only sets out two first principles with which we are familiar from his other works, those concerning the nature of mind and of body. He also introduces a new principle, PNH, from which, he claims later in the work, all he has written on the passions follows.[29] Thus far, I have shown at least that the last articles of part 1 do follow from PNH in that they explicate the second part of that principle—how we are able to regulate how we feel about things through artifice and habituation. I have also shown that, at least in case of artifice, explication helps to resolve a potential problem with PNH. We also have an answer to one of the interpretive questions with which we started, that concerning the place of the ethical discussion at the end of part 1. In raising the issue of the regulation of the passions, Descartes provides an initial account of what it might be to change the 'natural joining' of mental and physical states by artifice and habituation. That this account helps solve some of the potential problems with PNH suggests that the other ethical discussions might also help in this regard.

How What Descartes Writes About the Passions Follows

As we have just seen, after first introducting PNH, Descartes begins to explicate its second part, that by artifice and habituation we can join a thought to a bodily motion other than that to which it is joined by

nature. I have suggested that PNH serves to explain the regularity of the causal relation between mind and body. We now need to see how this explanation is supposed to go. I want to suggest that we can see this if we properly understand PNH. And advancing our understanding of PNH is precisely what Descartes intends to do in the rest of the *Passions*. On the reading I will propose, the bulk of part 2 of the *Passions*, through a detailed account of the passions in the specific sense, explicates the first part of PNH, that is, what it is for bodily states and mental states to be 'naturally joined' in a way that is much richer than the unexplained causal connection of the standard interpretation. Through this account of natural joining we are given an explanation of the regularity of the relation between mental and physical states which can support the potential for change inherent in PNH. The transition between parts 2 and 3 accords with this reading, as there Descartes further explicates the second part of PNH, and at last through part 3 it becomes clear how the second part of PNH is completely consistent with the explanatory goals of PNH.

To see that Descartes means something more by 'naturally joined' than an unexplained causal connection let us begin by considering the principle of taxonomy Descartes sets out in articles 51–52. In article 51 Descartes explains that he will not distinguish the passions by their most proximate causes—particular physiological states—because they are insufficient "to distinguish between the various passions" (AT, 11.371; CSM, 1.349, a.51). Now, by this he might mean simply that these physiological states are hard to specify, and so are empirically inadequate for distinguishing the passions. This interpretation would be consistent with the reading of 'naturally joined' as an unexplained causal connection. For certainly on that interpretation, if we knew the physiological states, we could distinguish the passions from one another just by observing which passion arises from which physiological state, and if we cannot sufficiently distinguish physiological states it is at least not clear how we might distinguish passions. However, Descartes does not seem to be concerned with empirical adequacy here. For one, he does seem to think that we do have empirically adequate knowledge of the physiology associated with the passions, as he has no problem specifying the microphysiological causes of the passions in articles 102–106

and their expressions (aa.112–36). Moreover, he suggests that these physiological states are insufficient for distinguishing the passions because, though they are their proximate cause, they are not their first cause. He writes: "we must investigate their origins and examine their first causes" (AT, 11.371; CSM, 1.349, a.51). Descartes is claiming that though the passions are in one sense caused by the motions of the animals spirits, we can look for (and find) the cause of that determinate relationship between physiology and thought. And once we have that explanation, Descartes is claiming, we will be able to properly distinguish the passions.[30] And with this explanation of the determinate relation between physiology and thought, we gain an enriched account of what it is to be 'naturally joined'.

In the next article (a.52), Descartes proposes to distinguish the passions as follows:

> I observe, moreover, that the objects which stimulate the senses do not excite different passions in us because of differences in the objects, but only because of the various ways in which they may harm or benefit us, or in general have importance for us. . . . That is why an enumeration of the passions requires only an orderly examination of all the various ways having importance for us in which our senses can be stimulated by their objects. (AT, 11.372; CSM, 1.349, a.52)

Thus, while the passions are generally defined as states of mind, which refer to the soul, and are caused by physiological states, they are defined as the particular passions they are by what they represent, the importance of things to us.[31] Certainly, this taxonomical principle helps in identifying and cataloging the passions. In articles 53–68 Descartes goes on to specify the passions just by considering the way things are important to us, what we feel in proportion to a thing's newness to us, its goodness or badness for us, and to the temporal situation of that perceived good or bad.[32] But given article 51, in allowing us to distinguish passions, it should also be the specification of that first cause or principle which can explain the determinate relations between physical and mental states, in the case of the passions at least, and so flesh out what Descartes means by 'naturally joined'. How, though, does it do that? That is, in what way does the passions' representation of the importance of things to us in any way explain the relations between mental and physical states, let alone the regularity of those relations?

Descartes's answer to this question comes in his treatment of the primitive passions, for there he offers an explanation of how particular sorts of physiological states come to be joined with particular sorts of mental states, and this explanation involves precisely the importance of things to us. At first, however, it might not seem that Descartes's discussion of the primitive passions proceeds in this way. It can seem as if Descartes is simply describing what those associations are, rather than explaining them. For he begins by first setting out the thought constituting the passion and then the physiology associated with that thought. So his treatment of the first primitive passion—wonder—proceeds as follows: In article 70, titled, "Wonder: Its Definition and Cause" (AT, 11.380; CSM, 1.353, a.70), Descartes avers that in wonder we are surprised by that which seems rare and extraordinary to us and then goes on to detail the physiological cause of wonder, a discussion he continues in articles 71–72. He then concludes his treatment by considering the ways in which wonder affects us.[33] We get no account of why that particular physiology is associated with wonder; we are just supposed to accept that it is so. And for the discussion of the other primitive passions—love, hate, desire, joy, and sadness—Descartes seems to follow the same line. He begins by defining the remaining five primitive passions, detailing the way in which each represents the importance of things (aa.79–95).[34] He then, in articles 97–136, explicates the physiology proper to each passion. Articles 97–101 present what we might call the symptoms of each passion—changes in pulse rate, temperature, and digestion; in articles 102–106 Descartes then offers a physiological explanation, i.e., an explanation in terms of the movements of those animal spirits, of those symptoms. On the face of it, Descartes seems simply to be doing just what he did for wonder, laying out the associations between mental and physical states proper to each of the passions. The only difference seems to be that Descartes goes into much more detail about these passions' physiology than he did for wonder.[35] Moreover, in articles 112–36, he continues this specification of the physiology of the passions with a somewhat detailed account of the expressions of the passions. And so it can certainly seem as

though Descartes, after describing a particular association between passion and physiology, simply spends an inordinate amount of time detailing the physiology of the passions. There seems to be no explanation at all of mind-body causal relations.

However, despite initial appearances, Descartes's discussion here does not consist merely of a description of an existing association between passion and physiology. In articles 107–11 Descartes offers a natural history of the primitive passions, and this story about how we come to feel our first passions serves to explain how it is that certain thoughts come to be associated with certain physiological states. For one, he invokes PNH in claiming that these first feelings of our passions inform our future feelings of them (recall AT, 11.407; CSM, 1.365–66, a.107). For, once we have joined thought and physiological state, a thought of that type will thereafter (without the intervention of artifice or habit; Descartes conveniently neglects this aspect of PNH here) be associated with a physiological state of that type. However, with this natural history, Descartes also provides an account of our first joining "some bodily action with some thought," that is, of the natural joining of mental and physical states. According to him, the pairings of physiological state and passion are neither mere accident, nor are they simply god-given for no discernable reason. Rather, he takes it that there is a reason for our feeling them when we do (that is, when we are in the sort of physiological state we are in). And the reason involves the importance of things to us. In the case of love, Descartes claims that when our soul "began to be joined with our body," the heart contained a nutriment particularly well-suited to maintaining the life of the body. That the body was flush with this good blood caused the soul to feel love:

> For it seems to me that when our soul began to be joined to our body, its first passions must have arisen on some occasion when the blood, or some other juice entering the heart, was a more suitable fuel than usual for maintaining the heat which is the principle of life. This caused the soul to join itself willingly to that fuel, i.e. to love it. (AT, 11.407; CSM, 1.365–66, a.107)

Descartes continues: We first felt hate because there was bad blood, insufficient for maintaining life, circulating in the body; we first felt joy

because our blood was so well-nourished that our body had no need to replenish itself; we first felt sadness because our body lacked sustenance; and we first felt desire to receive things suitable to the body. Why, then, according to Descartes, does the soul feel its first passions? It feels them because the body with which it is becoming joined is in a certain physiological state. But this bodily state does not serve merely as an efficient cause for the our passion. For the soul feels the passion it does because the physiological state it is in has value for us—it indicates the well-being of the body, and the soul, simply in virtue of being joined to a body, shares in this well-being. It is through this sharing of value that the soul institutes the association which will then stand between physical and mental states.[36] The relations between particular mental and physical states is thereby explained by their relevance to our good.

Descartes's natural history of the passions thus provides further explication of what it is for a mental and a physical state to be 'naturally joined'. One aspect of their natural joining is the causal relation which stands between the two, but there is more. That causal relation is in place just because our being in that particular physiological state is important to us, that is, related to our good, in the way that it is, and that, moreover, we recognize and institute it as such. It is for this *reason* that the causal relation between physical and mental states has the regularity it does.

It is worth noting that this reading of 'naturally joined' is not particular to the *Passions*. It resonates nicely with Descartes's discussion in Meditation Six of the natural instituted associations between mental states and bodily states.[37] In Meditation Six, once Descartes has established that, although mind and body are really distinct, they are "very closely joined and, as it were, intermingled" in a human being (AT, 7.81; CSM, 2.56), he goes on to explicate the evidence for that union. The first piece of evidence—how nature teaches him that mind and body are united—are just those "sensations of hunger, pain, thirst, and so on" (ibid.), those thoughts which indicate that "my body, or rather my whole self, in so far as I am a combination of mind and body, can be affected by the various beneficial or harmful bodies which surround it" (ibid.). As he continues with his explanation of these "modes of thinking arising from the union" (ibid.), the relation of these thoughts to our benefit and harm becomes even more pronounced. The rest of the discussion aims

to address the problem posed by the 'true errors of nature' whereby we mistake our benefits and harms: it seems that such natural mistakes imply that god is a deceiver. Descartes's answer here runs as follows: not only are the associations between physical and mental states instituted by nature, but those naturally instituted associations are just those which are most conducive to our general well-being:

> When the nerves are pulled in the foot, they in turn pull on inner parts of the brain to which they are attached, and produce a certain motion in them; and nature has laid it down that this motion should produce in the mind a sensation of pain, as occurring in the foot. . . . And we must suppose the same thing happens with regard to any sensation.
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> My final observation is that any given movement occurring in the part of the brain that immediately affects the mind produces just one corresponding sensation; and hence the best system that could be devised is that it should produce the one sensation which, of all possible sensations, is most especially and most frequently conducive to the preservation of the healthy man. And experience shows that the sensations which nature has given us are all of this kind. (AT, 7.87; CSM, 2.60)[38]

Again, Descartes, at least implicitly, suggests that we can explain the particular associations between mental and physical states by the way in which they figure in our well-being.[39] And indeed, it is because they are to be explained in that way that we can once again rest assured that god is not a deceiver.[40]

At this point, one might worry about the lack of any comparable explanation in the case of wonder. This lack might be reason to think that our good does not play the explanatory role I am suggesting it does with the other passions. There are, however, ways to account for this lack without undermining the interpretation I am offering here. For one, it is not at all clear that there should be a unique sort of physiological state which represents this newness to us. Rather, it would seem that when we find ourselves affected by something in a new way—say, the animal spirits go to an area of the brain they have not yet passed through—we experience it with wonder. In this way, then, wonder itself is just the feeling we have upon having a new experience, and it makes little sense to say that the physiology of each new experience will

be the same—then it would not be new. In addition, wonder is unique among the passions in that it is not associated with any change in the heart and in the blood, and this uniqueness might allow Descartes to explain it differently, though still with reference to our good. Indeed, wonder is useful, according to Descartes, in disposing us to acquire knowledge, and acquiring knowledge is a distinctively human good.

I have been arguing that in his discussion of the primitive passions Descartes offers an account of what it is for mental and physical states to be naturally joined which also serves to explain why they are joined as they are. That is, he explicates the first part of PNH in a way which elucidates how PNH can achieve the role it is marked in part 1 as playing. I now want to show that in the rest of part 2 Descartes further explains the second part of PNH—that we can change what we feel naturally through artifice and habit—in a way which makes clear just how this potential for change is consistent with his account of what it is to be naturally joined. For even under this richer conception of the natural relation between mental and physical states, there are problems. First, if bodily states and mental states are naturally joined so as to establish a determinate relation between mind and body, no matter how we understand that to be acheived, it would seem that if we change those relations we undermine what the natural relation is supposed to establish. Using artifice to correct for misrepresentations of our good through judgement and cognitive assocations can avoid this problem, as we have seen, but we still face the problem of understanding how Descartes can consistently claim that we can simply change the immediate connections between mind and body as he seems to in articles 44 and 50. Moreover, explaining those natural relations by appealing to our good only seems to shift the other problem. Instead of willfully going against what god has given us, in changing the natural relations between mental and physical states, whether by artifice or some other means, we willfully go against our nature. And while this might not be heretical, it certainly seems perverse.

Indeed, Descartes's discussion in Meditation Six, which we have just looked at, seems to recognize the first point. For there Descartes seems to preclude the possibility that we can in any way change our nature, because our nature is as it is for our good. So while it is in our

nature to be sometimes deceived by our senses, most poignantly in the case of dropsy, he suggests that this sort of error is the price we must pay for having a good nature bestowed on us by a nondeceiving god. Yet even here, Descartes leaves open the possibility of 'emending' our nature. Immediately after he seems to resign himself to those occasional 'true errors' of his nature such as dropsy, Descartes writes: "This consideration is the greatest help to me, not only for noticing all the errors to which my nature is liable, but also for enabling me to correct [*emendare*] or avoid [*vitare*] them without difficulty" (AT, 7.89; CSM, 2.61).[41] By 'avoid' here, Descartes must be alluding to something like the method of artifice whereby we rely on our better judgement to move beyond these errors.[42] However, it also seems that Descartes thinks that we can change or 'emend' aspects of our nature in some other way. It remains for us to understand just how to make sense of this claim.[43]

Our passions mislead us in ways similar to the ways sensations do. They admit of both 'true errors' of nature and the more innocuous distortions of confused perceptions. Often we wonder at things too much, and of the other primitive passions Descartes writes:

> There are many things harmful to the body which cause no sadness initially (or which even produce joy), and . . . other things are useful to the body, although at first they are disagreeable. (AT, 11.431; CSM, 1.377, a.138)

We can, however, control our dispositions to act on these misrepresentations,[44] as well as correct for them in other ways, through the method of artifice. We "must use experience and reason in order to distinguish good from evil and know their true value, so as not to take the one for the other or rush into anything immoderately" (ibid.). That is, we should attend to those 'reasons, objects, and precedents' which argue against our passionate representations of things. Having done this, we will bring about in ourselves desires to act commensurate with our more considered judgments and so be able to avoid the excesses of the passions. That is, just as with sensations, we are to use our better judgment to regulate our passions.

However, it is still not clear how, in making these judgments which

to regulate and temper our passions, we are not going contrary to [illegible][45] In order to resolve this problem, Descartes needs to articulate just how we are able to judge our good better than we are naturally given to. That is, he needs to articulate the norms through which we regulate our passions. While it would take us too far afield to work through Descartes's response to this challenge fully, I think we can see how the rest of part 2 and the articles on generosity at the beginning of part 3 serve to address it.[46]

There are two distinct questions we can ask regarding the norms governing the regulation of the passions. First, how do we know which passions are proper measures of our benefit and harm and which are not? How can we determine the inaccuracies or distortions of our good in our passions, so that we might properly regulate them? Descartes, it seems, is not very interested in this question; he thinks the answer is straightforward. For though it may well be the case that our passions lead us astray, their design is to promote our bodily well-being.[47] Given that this is the nature of the passions, we can correct for their distortion and for their occasional gross errors by appealing to our previous experience. We can judge whether what we are feeling now is an accurate representation of the value of things to us by appealing to our past feelings of this sort and our past encounters with such things. We can also attend to any other passions we might be experiencing at the time and sort through our mixed feelings. All this is very much the same as the way we might correct for the errors and misperceptions of our senses. And we might even agree with Descartes that the details of these mundane reflections on our feelings, while integral to our everyday lives and important to a moralist, are not of much interest to a *physicien*.

Insofar as this answer locates the norm relevant to the regulation of the passions within the nature of the passions themselves, it seems that we have an answer to our worry, for even when we regulate particular passions, we are drawing on the good represented through them more generally. However, as we have seen from the natural history, the good naturally intrinsic to the passions involves simply the well-being of our body. We might thus ask the further question: Is our bodily well-being the definitive measure of our good? Descartes's answer here is clear. It is not. He writes at the beginning of article 139:

> This would be sufficient if we had in us only a body, or if the body were our better part. But as it is only the lesser part, we should consider *the passions chiefly in so far as they belong to the soul. In this regard love and hatred result from knowledge [la connaissance] and precede joy and sadness, except when the latter stands in place of the knowledge of which they are species. (AT, 11.432; CSM, 1.377, a.139)*

Our passions, though they naturally indicate the good of the body, are also thoughts. And as thoughts, they bear on another source of value, that proper to the mind. For instance, while some passions might well promote our bodily well-being, they do not serve us well in perfecting our minds, or acheiving the contentment proper to virtue. Thus, Descartes enjoins us to take care not only to feel things to the degree appropriate to their benefit or harm to us physically, and to act accordingly, but also to promote in ourselves those passions which are good for us as thinking things while curbing those which are bad for us in this way. In particular, he claims we should cultivate in ourselves feelings of love and joy, while curbing feelings of hatred and sadness.

Following from this good proper to the mind is another norm for regulating the passions. In the articles which form the end of part 2 (aa.144–48), Descartes explains that, under this norm, we are to regulate our desires[48] so that they conform as much as possible to what 'depends only on us':

> The error we commit most commonly in respect of desires is failure to distinguish adequately the things which depend wholly on us from those which do not depend on us at all. Regarding those which depend only on us—that is, on our free will—our knowledge of their goodness ensures that we cannot desire them with too much ardour, since the pursuit of virtue consists in doing the good things that depend on us, and it is certain that we cannot have too ardent a desire for virtue. (AT, 11.436–37; CSM, 1.379, a.144)

The proper measure for our passions from this perspective is no longer the well-being of our body, but now what depends on us, that is, on our will. We are to distinguish what depends on us from what does not, and

desires to the former. In this way, we will not be sad when fulfill our desires, nor will we hate that which impedes us fulfilling them. Rather we will be content with having achieved limits. But what are these limits? What does it mean to say that we should limit our desires to what depends on our will? Surely, the only thing that properly depends on our will, for Descartes, is our faculty of judgment. And so this sort of contentment involves our making judgments about which actions we should take with the knowledge we have to date.[49] As Descartes sees it, we make good judgments on how to act for the best by making a reasoned decision and resolving to stick to that decision. As this resolve truly depends only on our will, it is here that we find the greatest satisfaction, or in Descartes's view, virtue.[50] This conception of virtue is embodied, for Descartes, in the passion of generosity. For generosity is what we feel when we understand that we have a free will and resolve to use that will well. And insofar as we are assured of our freedom through it, generosity is "the key to all the other virtues and a general remedy for every disorder of the passions" (AT, 11.454; CSM, 1.388, a.161).[51]

The task of regulating the passions thus becomes one of integrating the goods of mind and body. The picture Descartes seems to be painting is this: We have certain passions by nature, and by that nature those passions serve our physical well-being. But occasionally those passions are misguided, and through their misguidedness they fail in their purpose. To regulate our passions we need not only to ensure that we get our bodily good right—that we feel things in proportion to how they really are important to us. We also need to regulate them in accordance with our ability to form and pursue ends. So, in regulating our passions, we still want to take care to pursue our good and avoid that which harms us, and to strive to have those goods and evils in proper perspective. While surely we still rely on reason and experience to get clear on just what is for our good, our good is no longer simply a function of our bodily well-being. Our good is that bodily well-being integrated and balanced with what promotes our contentment.

With this more developed account of the regulation of the passions in hand, we can now see how PNH is not as perverse as it initially seems. In virtue of the way we come to have them, the passions origi-

nally represent the way things impact on our bodily well-being. Our mind and body are naturally joined so as to effect this representation. We are, however, not simply bodies, nor even subordinated to our bodies: we are true unions of mind and body. Insofar as we are minds we can correct for the misrepresentations and distortions of the passions through rational reflection guided by the norm intrinsic to our passions. Moreover, and more centrally, as states of mind, the passions *are conducive to our contentment, that is, our good as thinking things. And we might think of our good as human beings as an integration and balancing of these two goods. Insofar as we change or regulate those passions we feel naturally in accordance with our good as human beings, we are in no way willfully deviating from our nature. On the contrary, in allowing both facets of our nature to figure in our passionate lives, we are realizing our nature more completely.*

Now we have a sense of what Descartes is trying to accomplish in part 2 of the *Passions*, and of how it relates to part 1. In part 1 Descartes lays out a principle, what I am here calling PNH, which is meant to explain the regularity of the causal relationship in which physical and mental states stand to one another. In part 2, through laying out the primitive passions, he explicates this principle in a way which clarifies just how it performs its explanatory role. In doing so, he articulates further just what it is for a mental and a physical state to be naturally joined. Moreover, we have an account of the ethical discussion at the end of that part. It serves to explicate the norm through which we are able to correct for the errors of the natural joining of mental and physiological states. Two questions remain, however. First, we do not yet have an account of how Descartes can claim that we can actually change the natural relation of mental and physical states. And second, we also need to understand how part 3 fits into the work as a whole. In the reading I will propose, the answers to these two questions are tied together.

I will first lay out what I take to be going on in part 3. In the initial taxonomy of part 2, Descartes had provided a catalog of the various ways in which objects might be important to us, which he further analyzed into the primitive passions and their species. In article 69 he writes:

> [T]he number of those which are simple and primitive is not very large. Indeed, in reviewing all those I have enumerated, we can easily see that there are only six of this kind—namely, wonder, love, hatred, desire, joy and sadness. All of the others are either composed from some of these six or they are species of them. That is why, to ensure that my readers are not confused by the multiplicity of the passions, I shall first enumerate the six primitive passions separately, and then I shall show how all the others originate in them. (AT, 11.380; CSM, 1.353, a.69)

In part three Descartes returns to consider the other passions, those "species" or compositions of primitives, and for once does precisely what he has promised. He continues in the order in which he originally cataloged the passions, and in his descriptions of the passions he explicates just which passions they are species or mixtures of. So, esteem and scorn are different kinds of wonder, varying with the greatness (or smallness) of their objects;[52] veneration and disdain are mixtures of wonder and apprehension or boldness, respectively; apprehension and boldness, as well as hope and despair, are combinations of desire mixed with either joy or sadness, respectively; and so on, with the passions which follow analyzed not only in terms of the primitive passions but those which come before.

What Descartes does not detail in any consistent way, however, is what it is to be a species of a primitive passion or how the combinations of passions are effected. On the one hand, in his discussion of generosity, he seems to suggest that there is a combination of physiological motions which runs parallel to the complex representation of ourselves as worthy. So vanity and generosity, which "consist simply in the good opinion we have of ourselves . . . [are] produced by a movement made up of those of wonder, of joy, and of love (self-love as much as the love we have for the cause of our self-esteem)" (AT, 11.451; CSM, 1.387, a.160).[53] However, this kind of analysis is unique in his accounts of the passions in part 3, and indeed it is the only place where we do find any physiological detail at all. Moreover, it seems quite peculiar to claim that generosity is caused by a movement of the animal spirits, for generosity, in being what we feel just when we understand that we have a free will and resolve to use that will well, directly depends on our exercise of our mental faculties.

Generosity is not alone as a passion requiring a mental act. Many of the passions, as Descartes details them here, have as their proximate cause not physiological states but judgments we make. So, for instance, we feel hope when we represent reasons for thinking a desire will be easily fulfilled (a.165) and jealousy when we esteem something greatly and judge we might lose it (a.167). Even in feeling those passions Descartes expressly identifies as species—esteem, scorn, affection, and the like—we must have already made a judgment about a thing's greatness or smallness, for in these cases we are not feeling for the thing itself, but rather for a quality we take that thing to have. As for other passions, while Descartes does not explicitly assign them a representational character, he does want to articulate their logical connection to our other, less passionate thoughts. So, remorse "results from our doubting that something we are doing, or have done, is good" and "necessarily presupposes doubt" (AT, 11.464; CSM, 1.392, a.177); derision "is a kind of joy mixed with hatred, which results from our perceiving some small evil in a person whom we consider to deserve it" (AT, 11.464; CSM, 1.393, a.178); pity is the flip side of derision, where we feel "sadness mingled with love . . . towards those whom we see suffering some evil which we think they do not deserve" (AT, 11.469; CSM, 1.395, a.185).[54]

I want to suggest that the better part of the particular passions Descartes details in part 3 arise from our judgments about the value of things. That is, they arise through the process of reflection on what we naturally take to be the value of things. In this way, these particular passions arise in a way akin to the method of artifice. In regulating the passions through artifice, and engendering in ourselves new habits of feeling things, we appeal to our considered judgment about the value of things, and for these reasons come to feel differently about things than we do naturally. But reflection on the value of things need not result in our feeling differently about them so much as adding nuance to our assessments. We might find that in fact we have complicated feelings toward something, in proportion to our multiple relations to that thing. I might both admire my teacher's knowledge and yet be apprehensive about revealing my own ignorance in the face of that knowledge; that is, I might venerate my teacher. Likewise, we might not feel naturally

toward something in any particular way, and only come to have a determinate feeling upon reflecting on it. So, we might see a beggar on the street, and not know what to feel toward her, if anything. We come to feel pity, say, once we have formed a judgment about her situation, and judged her to have suffered some undeserved misfortune.

That we do feel passions as a result of judgments we make is not at odds with Descartes's account of the passions. Indeed, at the end of part 2, in article 147, Descartes introduces what he calls "internal emotions of the soul" which "are produced in the soul only by the soul itself" (AT, 11.440; CSM, 1.381, a.147). We feel these interior emotions because we have made a judgment about something's being good or bad for us.[55] Thus, "when we hear good news, it is first of all the mind which makes a judgment about it and rejoices with that intellectual joy which occurs without any bodily disturbance" (AT, 8.317; CSM, 1.281), or when at the theater we can be moved to sadness by the tragedy of the play, yet nevertheless take pleasure in being so moved (a.147).[56] It seems clear that Descartes thinks that our passions can come from two sources, our being in a bodily state and our making a judgment about the good or evil of things.

So, though this suggestion that many of the passions Descartes considers in part 3 of the *Passions* are 'interior' passions (in that they involve judgments we make about the good or evil of things) is supported only indirectly by the text, I do think reading part 3 of the *Passions* in this way can help us to address the remaining issue facing PNH: how it can be consistent to claim that we can directly change the natural joinings of mental and physical states. To see how this might be so, first consider that their being 'interior' passions does not entail that they are removed from our embodied experiences. We feel pity for the beggar we see on the street, we venerate the teacher we encounter every day, we become both saddened and pleased at the play before us in the theater. While they are 'interior' passions, they are not those of a disembodied mind.[57] In experiencing what we do, we might develop habits of feeling certain ways; our feeling of pity might become tied to our experience of the beggar. And just as our natural passions can be misguided in their representations of our good and evil, so too can our particular passions be misguided through our mistaken judgments

about the value of things. We can be misguided in mocking the beggar rather than pitying her, for instance, if we have misjudged her misfortune as deserved rather than undeserved. To regulate our particular passions, then, we must undertake the same sort of process of reflection and correction of our judgments that we do in the case of those passions which we feel by nature. We can ask ourselves why it is we mock the beggar, and rethink whether she, or anyone, deserves a fate like hers. Through this process of reflection, and of correcting our judgments about good and evil, we can come to feel differently toward the beggar, perhaps even pity. Coming to feel differently about the beggar in this way does not require a string of judgments as long as the many mistakes we will undoubtedly make about her. It is not the case that upon seeing the beggar we work through each stage of reflection on our feelings toward her until we finally find ourselves feeling the pity, say, we now feel. Rather, we feel this pity immediately. And so, in regulating these particular passions, we rehabituate ourselves, so that we now find ourselves very differently upon having the experience we do. That is, we effectively join our passions to other bodily motions, for our experience of the beggar is a matter of bodily motions, by habit, or as Descartes puts it at the very end of the *Passions*, we can strive "to separate within ourselves the movement of the blood and spirits from the thoughts to which they are usually joined" (AT, 11.486; CSM, 1.403) and then presumably rejoin that physiology to another passion. That is, in regulating our passions here, we realize the other aspect of the second part of PNH.

But, one might ask, how is this consistent with the explanatory goal of PNH? On the reading I have put forward here PNH is meant to explain how thoughts and physical states stand in a causal relation to one another (whereby one not only has the power to affect the other, but to do so in a regular way). How can our ability to change the associations between thoughts and physiology be at all consistent with that aim? To answer this question we need to look again at Descartes's account of the natural joining of thoughts and physiological states. Recall that in the natural history of love, Descartes describes the soul as joining itself willingly with the physiology proper to love. That is, the soul itself acts in effecting the natural relation which stands between a

physiological state in the body and a thought. And it is clear that Descartes's formulation here is not accidental, for this same activity is assigned to the soul in his various statements of PNH. Again, in article 107 he writes, "once *we* have [*nous avons*] joined some bodily action with a certain thought . . ." (AT, 11.407; CSM, 1.365, a.107, emphasis mine), and in a.136 he writes *verbatim* the same thing.[58] Thus, Descartes seems to be suggesting that the soul effects a regularity in the connection between a sort of thought and a sort of bodily state just by taking up a certain conception of our good. In the case of the primitive passions, that good is simply that which is conducive to our bodily survival, as we have seen. We have also seen, however, that with reflection we can move beyond this natural good to one which incorporates our nature as thinking things. With this revised conception of our good, then, it would seem that the soul, we, might well effect new regular relations between thoughts and bodily states. That is, we might effect a second nature proper to a more developed union of mind and body. Thus, insofar as we understand our feeling the passions we do in virtue of an act on the part of the soul related to its conception of our good, it is possible to maintain that we might well come to feel things differently as we reconceive our good.

Conclusion: The Passions of the Soul and the Nature of the Soul-Body Union

In this essay, I have offered an account of how *The Passions of the Soul* hangs together as a whole. In providing this overview, I have undoubtedly opened up many questions which have been left unanswered. Certainly, we should want more clarification of the interior passions which I have suggested form the bulk of part 3, as well as of the straightforward bodily caused passions, and in particular of the way in which they are representational. We should also want to address the notion of causation in play, given Descartes's two-tier account of 'natural joining', and indeed to elucidate this notion of natural joining further, just to mention some central philosophical issues which have arisen. I take it that an advantage of understanding the argument of the *Passions* in the

way I have laid it out here is the very raising of these questions as well as an insight into how to contextualize and frame them. I cannot even begin to avail myself of this benefit here, however. Nevertheless, there is one further question I would like to consider in closing. According to the reading of the *Passions* put forward here, the work is largely devoted to explicating and defending Descartes's account of the union of soul and body. In this regard, it may help us in addressing the many unanswered questions and cryptic remarks Descartes makes on this matter elsewhere in his writings. I would like to close by making some preliminary steps in this direction.

First, I hope to have already shown here how the *Passions* is continuous with Descartes's remarks about the union in both the *Meditations* and *Principles*. We can also see the *Passions* as fulfilling the promise of his early letters to Elizabeth. In his letter of May 21, 1643, Descartes claims that "there are two facts about the human soul on which depend all the knowledge we can have of its nature. The first is that it thinks, and the second is that, being united to the body, it can act and be acted upon along with it" (AT, 3.664; CSMK, 3.218). He then notes that he has heretofore said little about the second fact, and, as if to fill this lacuna, he goes on to outline those primitive notions which are "as it were the patterns on the basis of which we form all our other conceptions" (AT, 3.665; CSMK, 3.218). The first[59] is extension, through which we conceive body in particular, and which entails our notions shape and motion; the second is thought, through which we conceive the soul on its own; and finally, "as regards the soul and the body together, we have only the notion of their union, on which depends our notion of the soul's power to move the body, and the body's power to act on the soul and cause its sensations and passions" (AT, 3.665; CSMK, 3.218). In neither this letter nor the next (June 28, 1643) does Descartes make clear just what this third primitive notion consists in. He is clear that what makes our notion of the union a primitive one is that it can, like thought and extension, only be understood through itself. And he seems to suggest that we are able to know it just by our everyday experience. He writes in the letter of June 28, 1643:

> . . . and finally what belongs to the union of the soul and the body is known only obscurely by the intellect alone or even by the imagination, but it is known very clearly by the senses. That is why people who never philosophize and use only their senses have no doubt that the soul moves the body and that the body acts on the soul. They regard both of them as a single thing, that is to say, they conceive their union . . . [I]t is the ordinary course of life and conversation, and abstention from meditation and from the study of things which exercise the imagination, that teaches us how to conceive the union of the soul and the body. (AT, 3.691–92; CSMK, 3.227).

That the notion of the union is always with us as we go about our daily business certainly rings true—while I am leading my life I think of myself as a whole person, and I would be hard pressed to go about my way if I stopped to decompose myself into a soul and a body. But it is also unsatisfying. For even if knowledge of our notion of the union is commonsensible, we might still think that there is some value in explicating what we take for granted. We would then be able to know the union in two senses. I might have a real practical knowledge that I am a thinking, embodied thing: I deliberate and make decisions about what I should pursue and avoid, how I should act, and in doing so I am realizing my nature as a union of mind and body. But that practical understanding is very different from the understanding which might explicate a primitive notion or "pattern on the basis of which we form . . . our conceptions." (AT, 3.665–66; CSMK, 3.218). I certainly understand practically that I am thinking just by having a thought, but understanding the nature of a thinking thing requires further reflection on my practice of thinking.[60] Similarly, then, we should be able to arrive at an understanding of the union which can help us to better understand our living our lives as we do. In these letters to Elizabeth, Descartes does not explicate that concept. We might think that he finally does so in the *Passions*.[61]

So, as Descartes's most developed treatment of the union, what picture of it does the *Passions* paint? According to the reading I have developed here, there are two aspects to the union. First, soul and body are joined in such a way that they can affect one another. This power to affect one another is simply asserted by Descartes, and does not seem to follow in any way from the natures of mind and body nor is it

explained in any way. Nevertheless, Descartes assumes that this ability to affect one another is consistent with his dualism. In addition, soul and body are joined in such a way that they affect one another in a regular way. Descartes does offer an explanation of this aspect of mind-body union. According to his explanation, a particular bodily state and a particular mental state are joined by nature in virtue of our good. Is the good which informs the union of thoughts and physical states derivable in some sense from the natures of mind and body? It seems it is in part, for our first passions are felt in accordance with the good of the body. And further, we can regulate those first passions not only by correcting for the misrepresentations of that bodily good, but also by drawing on that which is of value to the mind. In regulating our passions in this way, however, we come into ourselves as human beings, that is, beings with a good which is neither simply that of the body nor simply that of the mind, but with a good proper to the union of mind and body.

Is this developed union a substance in its own right? While I cannot address this question adequately here, I would like to sketch the line any answer to this question must follow. As Descartes lays it out in the *Principles*, a substance is "a thing which exists in a such a way as to depend on no other thing for its existence" (AT, 8a.24; CSM, 1.210), or in the case of mind and body, a thing which exists in such a way as to depend on no other thing except god for its existence (AT, 8a.25; CSM, 1.210). Now obviously, the union of mind and body depends not only on god but also at least logically on the existence of mind and body for its existence. Nevertheless, one might think that the union of mind and body is independent in a different nonsubstance sense. While certainly there cannot be a union of really distinct things without the existence of its component parts, one might well think that through this union a new sort of thing is created, one which is independent in that it is not decomposable into its composite parts. Thus, we might think that a republic, while joining the wills of its citizens, is something other than the mere sum of those wills. So, we need to get clear on whether the union, as outlined in the passions, is an independent entity in a similar, call it a moral, way. We need to better understand whether our good, according to Descartes, is a matter of coordinating the good of the body with that of

the soul, or whether there is a seamless synthesis of these goods in the human being. As should be clear, I am inclined to say that the human good is something more than the mere coordination of mind and body. For, on my reading of the *Passions*, in reflecting on our passions and reconceiving our good we can engender new passions in us and equally forge new links between thoughts and bodily states. Thus, it seems to me that the union of mind and body has a life of its own, and so is an independent entity in this moral sense, even though it arises out of mind and body. I am not, however, able to fully defend this claim here.

But even if we grant my inclination, to claim that the union is an independent entity in this moral sense is still *not* to claim that it is a substance, for Descartes. For him, a substance is known through its principle attribute, and that attribute gains expression through the various modes of the substance. What on this picture of the union would be the principle attribute? What would be its modes? It is not at all clear how we should answer these questions. Perhaps we could say that the principal attribute of a human being is its good, the leading of a good life. But it is hard to see how this good might be a quality of a substance, as a principal attribute is supposed to be. Moreover, while the passions themselves are proper to a human being, they are of the soul. That is, they are thoughts and so properly speaking modes of mind.[62] It is thus far from clear that the Cartesian union of mind and body as outlined in *The Passions of the Soul* conforms to the ontological categories laid out in the *Principles*. So it seems that at the very least the *Passions* allows us to recognize that the mind-body union is not a substance in a way univocal with the way mind and body are substances. The *Passions*, I would suggest, allow us to see how the union of mind and body can be an entity with some independence from the substances of mind and body, but yet still not be a substance in the same sense as mind and body are.

In this essay I have shown just how Descartes follows the method of the physicist in *The Passions of the Soul*. He proceeds by laying out a set of first principles from which his account of the passions is meant to follow. Two of these principles are familiar, those concerning the natures of mind and body, but one seems to be new. This third principle, what I have termed the Principle of Nature and Habituation,

asserts that states of mind and of body are joined by nature but that we can join thoughts to other bodily states by artifice or habituation. On the reading I have proposed here, the bulk of the *Passions* is indeed devoted to explicating and defending this third principle, and from there drawing out an account of the passions. According to this explication, the natural joining of thoughts and bodily states is not a mere matter of an unexplained causal interaction between them. Rather it is the result of an active association of the soul with the body in virtue of our good. By explaining the associations between mental and physical states in terms of our good in this way, Descartes is able to maintain consistently that we can alter what comes to us naturally. The account Descartes provides here is not without its puzzles, however. It raises questions about such fundamental matters as his account of causation, the representationality of the passions, and the ontological status of the soul-body union. I have only begun to address the last of these issues here. I do hope, however, through laying out the structure of *The Passions of the Soul*, and its argument, to have set a firm base from which we might go on to answer this question as well as the many others which arise from reading that work.[63]

Notes

1. See the preface to the French edition: "I should like the reader first of all to go quickly through the whole book like a novel, without straining his attention too much or stopping at the difficulties which may be encountered" (AT, 9b.11; CSM, 1.185).

2. Though the trend is clearly changing, this work has often been read as a piece of a larger whole with the *Treatise of Man*, part 5 of the *Discourse*, and the unfinished *Description of the Human Body* in which Descartes offers his contribution to the new mechanist accounts human biology, most directly identified with William Harvey's *De Motu Cordis*. Descartes read Harvey and, though he disagreed with him (wrongly) on some of the details, he agreed with his approach and manner of explanation. See the letters to Mersenne, November or December 1632 (AT, 1.263; CSMK, 3.40); and to Plempius, 15 February 1638 (AT, 1.521ff; CSMK, 3.79ff); as well as *Discourse*, part 5. See J. Dankmeijer, "Les Travaux biologique de René Descartes," *Archives internationale d'histoire des sciences 6* (1951): 675–80; Geoffrey Jefferson, "René Descartes on the Localisation of the Soul," *Irish Journal of Medical Sciences 6* (1949): 691–706; G. A. Lindenboom, *Descartes and Medicine* (Amsterdam: Rodopi, 1978). While Gary Hatfield, "Descartes's Physiology and Its Relation to His Psychology," *The Cambridge Companion to Descartes*, ed. J. Cottingham (Cambridge: Cambridge University Press, 1992), pp. 335–70, does appeal in part to the *Passions* to draw broader philosophical lessons, he emphasizes the biological aspects of the work in doing so. Other French commentators, such as Geneviève Rodis-Lewis, J. M. Beyssade, and Denis Kambouchner do more justice to the multiplicity of elements in play in the work. See Martial Gueroult, *The Soul and the Body*, vol. 2 of *Descartes's Philosophy*, trans. R. Ariew (Minneapolis: University of Minnesota Press,1985); Geneviève Rodis-Lewis, *La Morale de Descartes* (Paris: Presses Universitaires de France, 1962); also, *L'anthropologie cartésienne* (Paris: Presses Universitaires de France, 1990); J. M. Beyssade, "La classification cartesiennes des passions," *Revue Internationale de Philosophie* 37 (1983): 278–87; also, "De l'émotion intérieure chez Descartes à l'affect actif spinoziste," *Spinoza: Issues and Directions*, ed. E. Curley and P. F. Moreau (Leiden: EJ Brill, 1990), pp.176–95; and Denis Kambouchner, *L'homme des passions* (Paris: Albin Michel, 1995). Recent work in English that takes the whole of the work into account includes Paul Hoffman, "Cartesian Passions and Cartesian Dualism," *Pacific Philosophical Quarterly* 71 (1990): 310–33; also, "Three Dualist Theories of the Passions," *Philosophical Topics* 19, no. 1 (1990): 153–200; Susan James, *Passion and Action: The Emotions in Seventeenth-Century Philosophy* (Oxford: Oxford University Press, 1996). See also Amélie Rorty, "Cartesian Passions and the Union of Mind and Body," *Essays on Descartes's Meditations*, ed. A. Rorty (Berkeley: University of California Press, 1986), pp. 513–34.

3. See letter from Elizabeth to Descartes, April 25, 1646 (AT 4.404f.). For Descartes's reply see his letter to her of May 1646 (AT, 4.407f; CSMK, 3.285).

4. The contrast here is Baconian empirical method. To say that Cartesian method is not empirical is not to claim that empirical evidence is unimportant for Cartesian science. The difference lies in whether empirical evidence is given theoretical, and even epistemic, priority.

5. He reiterates this point in identifying the fifth way of reaching wisdom, one "incomparably more elevated and more sure." This fifth way "consists in the search for the first causes and the true principles which enable us to deduce the reasons for everything we are capable of knowing" (AT, 9b.5; CSM, 1.181). There is a real interpretive question of what constitutes this 'following' relation.

In my discussion of the *Passions* I hope implicitly to make some prog... addressing this question, but I will be unable to do so explicitly here.

6. His thoughts are preliminary. In *Principles* 4.188, he adverts to t... jected parts of the work, one on animals and plants, the other on man... incomplete because, he claims, "I am not yet completely clear about ... matters which I would like to deal with there" (AT, 8a.315; CSM, I ...

7. Nor has he defended the claim of *Principles* 2.2 (AT, 8a.41; CSM, ...

8. *In a letter of June 15, 1646, to Chanut, he writes: "I must say ... fidence that what little knowledge of physics I have tried to acquire ha... a great help to me in establishing sure foundations in moral philosophy. Indeed, I have found it easier to reach satisfactory conclusions on this topic than on many others concerning medicine" (AT, 4.441; CSMK, 3.289). And in a later letter, also to Chanut, of February 26, 1649, only shortly before the Passions* is published, he writes: "these truths of physics are part of the foundation of the highest and most perfect morality" (AT, 5.290; CSMK, 3.368).

9. There is something unfamiliar about Descartes's presentation of these basics here: the discussion of the functions of body comes before that of the functions of soul. For someone proceeding *en physicien* this reversal of order is not trivial, since in doing so one aims to proceed from first principles to those that follow from it. But in both the *Meditations* and the *Principles*, the principle which comes first is that concerning the nature of mind, for, as Meditation Two makes clear, the mind is more immediately known than the body. Why does Descartes turn things around in the *Passions*? It seems that insofar as the work is about those thoughts which the soul has in virtue of its relation with the body, it makes a degree of expository sense to lay out the principle of the body first, then to consider the function of the soul, and then to consider how that function is affected by the soul's union with the body.

10. Thus, here Descartes reiterates the conclusion he garnered evidence for in *Principles* 4.

11. See the *Passions*: "To this we may now add that the small gland which is the principal seat of the soul is suspended within the cavities containing these spirits, so that it can be moved by them in as many different ways as there are perceptible differences in the objects. But it can also be moved in various ways by the soul, whose nature is such that it receives as many different impressions—that is, it has as many different perceptions as there occur different movements in this gland. And conversely, the mechanism of our body is so constructed that simply by this gland's being moved in any way by the soul or by any other cause, it drives the surrounding spirits towards the pores of the brain, which direct them through the nerves to the muscles; and in this way, the gland

... spirits move the limbs" (AT, 11.354–55; CSM, 1.341, a.34). In ... the interaction between mind and body here and throughout this ... causal, I do not intend to be endorsing any particular account of mind-... body, mind, causation. While Descartes has often been read as treating ... in this domain as a matter of causal powers, in recent years commen... argued that Descartes presents a species of occasional causation. ... Nadler, "Descartes and Occasional Causation," *British Journal for the ... Philosophy* (1994): 35–54; Margaret Wilson, *Descartes* (London: Rout... 1991); and Daniel Garber, "Descartes and Occasionalism," *Causation in ... Modern Philosophy*, ed. S. Nadler (University Park: Pennsylvania State Press, 1993), pp. 9–26. My own view is that Descartes has a troubling synthesis of these two sorts of position, one that later Cartesians go on to resolve. I cannot, however, argue for this position here. See also note 15 below.

12. As we have seen, Descartes in a similar way asserts the fact of the union in the *Principles*. Drawing on the letter to Elizabeth of June, 28, 1643, in which Descartes claims that the union of mind and body is "known very clearly by the senses" and "through the ordinary course of life and conversation" (AT, 3.692; CSMK, 3.227), one might think he arrives at this claim through the method of the physicist. We observe in ourselves certain passions. We then turn to consider just what might be the case in order for this phenomenon to be achieved, and arrive at the insight that mind and body must be joined in some way so as to affect one another. On this account, however, one should note that while the joining of mind and body has the status of a first principle insofar as it is meant to explain empirically observed phenomena, it is nowhere independently justified in the way that those of the nature of mind and body and of the existence of god are.

13. He goes on in aa.42–43 to explicate just how, on this understanding of its power, the soul is able to exercise its faculties of memory, imagination, attention, and moving the body.

14. Objections to the internal consistency of Descartes's position begin with Elizabeth's letters of May 6 and June 20, 1643. In Descartes June 28, 1643, reply to her he maintains just what he does here, that mind and body are distinct substances but yet are joined. While he admits that we may have trouble conceiving both their distinctness and their union, Descartes still wants to have it ontologically both ways. But repeating it often doesn't convince everyone. Spinoza certainly rails against the plausibility of interactionism; see Baruch Spinoza, *Ethics*, trans. S. Shirley (Indianapolis: Hackett, 1992) part 5, preface, pp. 201–203. This problem with substance dualism might be understood to motivate his own ontology.

15. Descartes, unlike Hume, often seems to take causation to involve the potential to affect something. But, unlike the Aristotelian account, this causal power is not rooted in a substantial form or essence of a thing. I would argue that it is because he assumes this odd middle position that it makes sense for Descartes to claim that the body can affect the mind without claiming that it will affect it in the same way each time.

16. Though commentators often fail to distinguish these two components in their discussions of Descartes's conception of a human being, that these are two distinct parts is not new to Descartes's account. The Meditation Six account of the union of mind and body proceeds in a similar way.

17. While I am not altogether happy with it, I use here the Voss translation. 'Artifice' is nicely juxtaposed to 'natural' here, but unfortunately connotes a kind of deception or fakery which is off the mark, as I hope the interpretation which follows will make clear. The CSM, 1 translation of 'effort' is not precise enough, however. Gueroult's (*Descartes's Philosophy*) interpretation of this *industrie* as a technique comes closer, as I discuss below, but runs the risk of presupposing a view of this process as a kind of mechanism.

18. The translation of *habitude* as 'habituation' is Voss's. It is rendered by CSM as 'habit'. Although the translation of this passage as a whole is from CSM, I have preserved Voss's translation of this word, for reasons which the following discussion makes clear. *Ed.*

19. Not to belabor the point, but again note that, according to this reading, a claim that the relationship is a *regular* one is different, for Descartes, than a claim that the relationship involves a causal power, though the two claims are importantly intertwined in his account of a causal relationship. See notes 11 and 15 above.

20. There is another peculiarity of the principle as invoked in a.107. It is invoked there to explain nothing other than the physiology proper to each passion. This might seem peculiar given Descartes's letter to More of 1649. There Descartes claims that he needs only the principles of his physics to explain that physiology: "I hope to publish this summer a small treatise on the passions in which it will be seen how I think that even in us all the motions of our limbs which accompany the passions are not caused by the soul but simply by the machinery of the body" (AT, 5.344; CSMK, 3.374). But here he invokes another principle, one that cannot be derived only from Descartes's physics since it concerns the soul as well as the body. Are these claims consistent? I think they are. We can read Descartes as telling More that all he needs to explain the *physiology* itself is his physics. The workings of the body are affected by nothing other than the body. With the principle introduced in a.107 Descartes is explaining how that physiology is associated with a particular passion.

21. Voss separates the institution of nature from what he terms the "Principle of Habituation." For reasons which I hope will become clear, I think it is more appropriate to subsume these as one principle with two aspects. Voss also notes that Descartes claims that all that he writes about the passions follows from this principle (for Voss, two principles), but he does not, in his footnotes, detail the connections. I hope in this essay to be fulfilling this promissory note. See *Descartes: The Passions of the Soul*, translated and annotated by Stephen Voss (Indianapolis: Hackett, 1989), pp. 42–43 n. 43.

22. See, for instance, Wilson, *Descartes*; Vere Chappell, "L'homme Cartésien," *Objecter et répondre*, ed. J. M. Beyssade and J. L. Marion (Paris: Presses Universitaires de France, 1984), pp. 403–26. Wilson complicates her view in Margaret Wilson, "Descartes on the Origin of Sensation," *Philosophical Topics* 19, no. 1 (1991): 293–324. My point here, however, does not depend on a particular understanding of 'causal relation'. It depends only on a reading which builds necessity into the natural joining of mind and body.

23. The puzzling claim here is not akin to that regarding a piece of technology. While under the Aristotelian system it might seem the whole science of mechanics is unnatural—in, say, lifting heavy weights, the mechanic is working against the natural propensity the thing has to fall—for Descartes, mechanics does not pose such a problem, as all such ways of working around practical problems through technology follow the laws of nature. However, on the standard reading I am considering here, the natural institution between mind and body is taken to be law-like. So in maintaining that there can be a real alteration in the way mind and body are naturally joined, Descartes appears to be claiming that we can violate god-given laws of nature. For more details on our potential for this sort of change see the discussion below.

24. For a similar account of this element of the regulation of the passions, see Gueroult, *Descartes's Philosophy*. For Gueroult, however, this technique is all there is to it, and on this point I differ with him, as will become clear below.

25. Our passions cannot likewise be directly excited or displaced by the action of our will, but they can be indirectly by the representation of things which are usually joined with the passions we will to have and opposed to the ones we will to reject. Thus, in order to excite boldness and displace fear in oneself, it is not sufficient to have the volition to do so. Rather, we "must apply ourselves to consider the reasons, objects, or precedents which persuade us that the danger is not great" (AT, 9.362–63; CSM, 1.345, a.45).

26. So, for Descartes, our emotional conflicts are not to be understood as battles between different parts of the soul. We find ourselves in emotional turmoil not because we feel an inner conflict, but because our pineal gland is

being pulled in two different directions, one by the passions, and the other by reason: "So there is no conflict here except in so far as the little gland in the middle of the brain can be pushed to one side by the soul and to the other side by the animal spirits" (AT, 11.365; CSM, 1.346, a.47). This bodily "conflict is revealed chiefly through the fact that the will, lacking the power to produce the passions directly . . . is compelled to make an effort to consider a series of different things" (ibid.). In order to control our passions we have to be vigilant in thinking contravening thoughts, for the passion can always return through the reversion to the original physiological state (ibid.).

27. By way of illustration, Descartes considers the way in which we move, as a matter of habit, from the thoughts of the sounds of spoken words (or the shape of written words) to the meanings of those words.

28. Here the analogy between this method of regulating the passions and the techniques of a mechanic is apt. Just as the mechanic violates no physical law in working around nature, so no psychophysical 'law' is violated in regulating our passions in this way. One might still ask, however, whether any mental 'law' is violated is cultivating certain associations. One might think of Spinoza as further developing this aspect of Descartes's account of the regulation of the passions.

29. Note that nothing in what Descartes says at the end of part 1 at all limits PNH to the passions in the specific sense. Indeed, the examples he uses by way of illustration—language learning, pains, taste for foods—seem particularly removed from the passions he goes on to consider. And insofar as our sensations of external objects and internal sensations, such as hunger and thirst, are also caused by motions of the gland, they, too, should be subject to PNH.

30. That Descartes wants to define the passions by something other than their physiological causes is also clear from the letters Descartes writes Elizabeth as he begins his project. In the letters of October 6 and November 3, 1645, Descartes bemoans to Elizabeth his confusion as to how to enumerate the passions, just because he thinks such an enumeration is necessary to understanding their nature: "These last few days I have been thinking about the number and order of all the passions, in order to examine their nature in detail. But I have not yet sufficiently digested my opinions on this topic." (to Elizabeth, November 3, 1645, AT, 4.332; CSMK, 3.227). He is not here concerned with gathering empirically adequate evidence, but rather with devising a principle through which to differentiate and thereby understand the passions. See also the letter of October 6, 1645: "I was planning to add a detailed explanation of all the passions. But I found it difficult to list them, and so I had to let the postman leave without my letter" (AT, 4.313, CSMK, 3.272).

In addition, it would be odd for him to distinguish the passions simply by their physiological causes since earlier he had claimed that the passions excited by a particular physiological state differ from person to person (a.39), a claim he repeats in a.136. What is constant from person to person is the explanation of the connections; even the connections themselves are idiosyncratic.

31. I would further suggest that definitions of the particular passions tell us more about what Descartes means by "refer to soul." The passions not only represent objects, they also represent us as standing in a certain relation to objects. Deborah Brown, "Reason and Representation in Descartes" (unpublished manuscript) argues for this sort of account of the representationality of the passions.

32. Along these general dimensions there are other variables: something new can be great or small, or a free cause; a good or evil in the future can be more or less likely, persistent, and depend on us to varying degrees.

33. Because the passions represent the importance of things to us, they move us to action, and wonder is no exception in this regard. It "makes us learn and retain in our memory things of which we were previously ignorant" (AT, 11.384; CSM, 1.354, a.75).

34. On occasion he identifies species of each primitive, apparently by the degree of the particular kind of importance each represents.

35. This difference in treatment makes some sense given Descartes's account of wonder's physiology; wonder results only from the motions of spirits in the brain and "has no relation with the heart and blood" (AT, 11.381; CSM, 1.353, a.71), and so it has no symptoms associated with changes of the heart and blood.

36. I am following Descartes in assigning the soul a kind of agency here. Note the formulation of PNH in a.107: "when *we* have joined some bodily action with a certain thought" (AT, 11.407; CSM, 1.365, a.107). The significance of this point will become evident later in this paper.

37. Alison Simmons, "Are Cartesian Sensations Representational?" *Noûs* 33, no. 3 (1999): 347–69, discusses these passages in a similar vein. See also A. Simmons, "A Latent Teleology in Descartes's Account of Sensation" (unpublished manuscript).

38. And these sensations, just as do the passions, stimulate us to action. In the case of the pain in our foot, it "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" (AT, 7.88; CSM, 2.60).

39. The account of the *Passions* does differ in one respect from the Meditation Six account: our passions involve not only our well-being but our recog-

nition of that well-being. It is perhaps this self-referential character that explains Descartes distinguishing our passions as those perceptions caused by the body which *refer to the soul*.

40. For "it is much better that it [the sensation] should mislead on this occasion than that it should always mislead when the body is in good health" (AT, 7.89; CSM, 2.61).

41. And here he echoes the thought expressed earlier with regard to our ideas of the modes of particular things, and of such things as light, sound, and pain: "Despite the high degree of doubt and uncertainty involved here, the very fact that God is not a deceiver, and the consequent impossibility of there being any falsity in my opinions which cannot be corrected [*emendare*] by some other faculty supplied by God, offers me a sure hope that I can attain the truth even in these matters" (AT, 7.8; CSM, 2.55–56). Thanks to Annette Baier for drawing my attention to the Latin here.

42. As Descartes outlines it here, we can rely on our other senses, our memory, and our intellect, too: "For I know that in matters regarding the well-being of the body, all my senses report the truth much more frequently than not. Also, I can almost always make use of more than one sense to investigate the same thing; and in addition, I can use both my memory, which connects present experiences with preceding ones, and my intellect, which has by now examined all the causes of error" (AT, 7.89; CSM, 2.61).

43. I will not have time here to return to consider if and how such an 'emendation' of our nature is possible in the case of sensation. I will focus solely on the passions, since my aim here is to understand the structure of the *Passions of the Soul*. It is interesting to note, however, that Louis La Forge, *Traité de l'esprit de l'homme* (Amsterdam: Abraham Wolfgang, 1666) does draw a distinction between sensations and passions with regards to our capacity to emend them. And this distinction makes sense, for the objects of our sensations are more stable, where the importance of things to us is less so.

44. These misrepresentations affect our actions. Thus, in excessive wonder we become bemused by the newness of the objects, rather than interested in the objects themselves, and in other cases the passions "incite us to seek the former [represented goods] and flee the latter [represented evils] with more ardor and more attention [*soin*] than is suitable" (AT, 11.431; CSM, 1.377, a.138). For in representing the importance of things, the passions move us to act. As Descartes notes in a.52, immediately after introducing the principle of taxonomy: "[t]he function of all the passions consists solely in this, that they dispose our soul to want the things which nature deems useful for us, and to persist in this volition" (AT, 11.372; CSM, 1.349, a.52). And so, as we have

seen, the use of wonder is in moving us to learn and remember, and in general the "natural function [of the primitive passions] is to move the soul to consent and contribute to actions which may serve to preserve the body or render it in some way more perfect" (AT, 11.430; CSM, 1.376, a.137). Just as we can control the effects of a dropsical thirst, we can regulate our passionate actions.

45. Meditation Six offers little guidance here, as Descartes has not yet recognized that there is a potential problem to be addressed.

46. See Lisa Shapiro, "Cartesian Generosity," *Norms and Modes of Thinking in Descartes, Acta Filosofica Fennica* 64 (1999): 249–75, for a more complete account.

47. The passions "are all by nature good" (AT, 11.485; CSM, 1.403, a.211); that is, they are those thoughts through which we aim at the good.

48. Descartes's account here leaves one somewhat puzzled about his account of action. Earlier in the work he suggests that the passions dispose us to will certain actions, so that any passion can lead directly to action. Here he suggests that our passions prompt our actions through the intermediary of desire, which for Descartes is a passion. I cannot here address Descartes's theory of action.

49. "[O]ur desire in this case must be fulfilled when we have followed this route, whatever evil may befall us; for, since any such evil was inevitable from our point of view, we had no reason to wish to be exempt from it: *we had reason only to do the best that our intellect was able to recognize, as I am supposing that we did*" (AT, 11.440; CSM, 1.381, a.146, emphasis mine).

50. "For if anyone lives in such a way that his conscience cannot reproach him for ever failing to do something he judges to be the best (which is what I here call 'pursuing virtue'), he will receive from this a satisfaction which has such power to make him happy that the most violent assaults of the passions will never have sufficient power to disturb the tranquility of his soul" (AT, 11.442; CSM, 1.382, a. 148). See also in the correspondence with Elizabeth (AT, 4.266 and CSMK, 3.258; AT, 4.275 and CSMK, 3.261; AT, 4.277 and CSMK, 3.261–62; AT, 4.305 and CSMK, 3.268).

51. For a more complete account of generosity see Shapiro, "Cartesian Generosity."

52. In part 2 Descartes has already detailed the different species of love, hate, and desire. See aa.82–85, 88–90.

53. The full passage reads as follows: "And because vanity and generosity consist simply in the good opinion we have of ourselves—the only difference being that this opinion is unjustified in the one case and justified in the other—I think we can relate them to one and the same passion. This passion is pro-

duced by a movement made up of those of wonder, of joy and of love (self-love as much as the love we have for the cause of our self-esteem)" (ibid.).

54. Some of the passions Descartes details here seem to be mere emotions, feelings which move the soul to act but without representative character of their own. See for instance, courage and cowardice (a.171, a.174).

55. It is an interesting question, in what relation do these interior emotions stand to what Descartes calls intellectual passions [(AT, 8.317; CSM, 1.281); and the letter to Chanut of February 1, 1648 (AT, 4.601ff; CSMK, 3.306)]? It does not seem that they are quite the same since the interior emotions are clearly felt by a full-fledged human being making her way in the world. The intellectual passions, on the other hand, can be felt simply by considering an object of the intellect alone. Descartes's central example here is love of god, though he does claim that we feel intellectual joy and sadness as well. Interestingly, he makes no mention of intellectual desire or wonder, the other two primitive sensuous passions. There is also the interesting question of what to make of the passions felt by the narrator of the *Meditations*: Are they interior or intellectual passions? See Lisa Shapiro, "The Passions in the *Meditations*" (unpublished manuscript). For a discussion of these interior passions see Beyssade, "De l'émotion intérieure"; and Denis Kambouchner, "La troisiéme intériorité: L'institution naturelle des passions et la notion cartésienne du 'sens intérieur,'" *Revue philosophique de la France et de L'Étranger* 4 (1988): 457–84.

56. See also the very complex example in the *Passions*: "when a husband mourns his dead wife, it sometimes happens that he would be sorry to see her brought to life again. It may be that his heart is torn by the sadness aroused in him by the funeral display and by the absence of a person to whose company he was accustomed. And it may be that some remnants of love or of pity occur in his imagination and draw genuine tears from his eyes. Nevertheless, he feels at the same time a secret joy in his innermost soul..." (AT, 11.441; CSM, 1.381, a.147).

57. See note 55 above.

58. The other two statements, in a.44 and a.50, are more ambiguous, using the *on* construction and hence holding a middle voice between passive and active. I would suggest that we might read Descartes as here leaving the nature of this natural joining open until he has offered his account in part 2.

59. The first Descartes himself mentions are the most general primitive notions, which apply to everything we can conceive, including being, number, and duration. These are distinct from the other three in that though Descartes refers to these as attributes in the *Principles* (AT, 8a.27; CSM, 1.212), they are universals, or modes of thought and not of things, and hence they are not principal attributes, or attributes constitutive of things.

60. Indeed such is the progress of Meditation Two.

61. This would be fitting, since a request from Elizabeth prompts him to write the work. Beyssade, "La classification cartésiennes," is sympathetic to this line. He wants to argue that Descartes' classification of the passions is a further articulation of this primitive notion.

62. Marleen Rozemond, *Descartes's Dualism* (Cambridge, Mass.: Harvard University Press, 1999) argues convincingly that sensations, and presumably passions as well, are modes of mind joined with a body.

63. I have been helped greatly in my thoughts on the *Passions* by Donald Ainslie, Paul Hoffman, Hans Lottenbach, and Alison Simmons, as well as the participants at the Descartes 2000 conference at the University of Toronto, especially André Gombay and Deborah Brown, and the *Passions* reading group at the NEH Summer Seminar on Descartes and his contemporaries held at Virginia Tech.