

Correspondence between Descartes and Princess Elisabeth

René Descartes and Princess Elisabeth of Bohemia

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[Brackets] enclose editorial explanations. Small ·dots· enclose material that has been added, but can be read as though it were part of the original text. Occasional •bullets, and also indenting of passages that are not quotations, are meant as aids to grasping the structure of a sentence or a thought. Every four-point ellipsis indicates the omission of a brief passage that seems to present more difficulty than it is worth. Longer omissions are reported on, between [brackets], in normal-sized type. This version aims mainly to present the *philosophical* content of the correspondence; though after the philosophical content stops, a continuing dramatic triangle—philosopher, queen, princess—is too interesting to pass up entirely. But much material has been omitted; it can be found in Lisa Shapiro’s informative edition (Chicago University Press, 2007). Titles and other honorifics are omitted; and Descartes will be made to use ‘you’ and ‘your’ where in fact he always used ‘your Highness’ and ‘she’ and ‘her’. Also omitted: the signing-off flourishes—usually (from Descartes) ‘your very humble and very obedient servant’ and (from Elisabeth) ‘Your very affectionate friend at your service’; and also, in some letters, a penultimate sentence whose only role is to lead into the closing flourish.—**Place:** Elisabeth writes from The Hague in all her letters (with one exception) through vii.1646, from Berlin through 5 xii.1647, and then from Crossen. All of Descartes’ letters are written from Egmond (Holland) except for two from France in vii.1644, one from The Hague in 6.vi.1647, one from Paris vi.1648) and one last letter from Stockholm. Strictly speaking, Descartes lived and wrote at different times in two small towns called Egmond-something.

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Letters written in 1643 and 1664

Elisabeth writes on 6.v.1643:

When I heard that you had planned to visit me a few days ago, I was •elated by your kind willingness to share yourself with an ignorant and headstrong person, and •saddened by the misfortune of missing such a profitable conversation. When M. Pollot [a friend of Descartes and of the Princess] took me through the solutions you had given him for some obscurities in Regius's physics, that increased my regret at missing you, because I'd have learned them better from you directly. And direct contact would have given me something else. When Professor Regius was here in The Hague, I put to him a question that he said would be better answered by you. I am shy about my disorderly writing style, which is why I haven't before now written to you asking for this favour.

[In her next sentence, the Princess relies on a theory about soul-on-body according to which the soul's thoughts are passed on to the 'spirits'—components of the body—which then cause overt bodily movements. See also note after the end of this paragraph.] But today M. Pollot has given me such assurance of your good-will towards everyone and especially towards me that I have overcome my inhibitions and come right out with •the question I put to the Professor, namely:•

Given that the soul of a human being is only a *thinking* substance, how can it affect the bodily spirits, in order to bring about voluntary actions?

•The question arises• because it seems that how a thing moves depends solely on **(i)** how much it is pushed, **(ii)** the manner in which it is pushed, or **(iii)** the surface-texture and shape of the thing that pushes it. [That version of **(1)** is a guess, based on the guess that *pulsion* should have been *impulsion*.] The first

two of those require *contact* between the two things, and the third requires that the causally active thing be extended. Your notion of the soul entirely excludes extension, and it appears to me that an immaterial thing can't possibly *touch* anything else. So I ask you for a definition of the soul that homes in on its nature more thoroughly than does the one you give in your *Meditations*, i.e. I want one that characterizes what it •is as distinct from what it •does (namely to think). It looks as though human souls can exist without thinking—e.g. in an unborn child or in someone who has a great fainting spell—but even if that is not so, and the soul's intrinsic nature and its thinking are as inseparable as God's attributes are, we can still get a more perfect idea of both of them by considering them separately. •In writing to you like this• I am freely exposing to you the weaknesses of my soul's speculations; but I know that you are the best physician for *my* soul, and I hope that you will observe the Hippocratic oath and supply me with remedies without making them public. [She is referring to an oath traditionally associated with Hippocrates, a pioneer of medicine in the 4th century BCE, which includes this: 'All that may come to my knowledge in the exercise of my profession or in daily commerce with men, which ought not to be spread abroad, I will keep secret and will never reveal.']

[The French word for the bodily 'spirits' referred to in that paragraph is *esprit*. That word can also mean 'mind', and is thus translated wherever that is appropriate in this version, e.g. in Descartes's reference to the Princess's 'incomparable mind' on page 3. When he or the Princess is writing about the mind in a weightily theoretical way—e.g. discussing inter-action between mind and body—they use not *esprit* but *âme*, usually translated by 'soul'. The link between *âme* and 'soul' will be preserved throughout this version; but remember that these uses of

'soul' have little if any theological content and are, nearly always, merely high-flown ways of saying 'mind'.].

Descartes writes on 21.v.1643:

[He starts by praising the Princess's favour of *writing* to him. When they have met, he says, he has been so dazzled by her combination of intelligence and beauty that he couldn't converse well. He continues:] No doubt you have noticed this, and have kindly wanted to help me with this by leaving me the traces of your thoughts on paper. I have now read them several times and become accustomed to thinking about them, with the result that I am indeed less dazzled, but am correspondingly more admiring when I see that these thoughts seem ingenious at a first reading and appear increasingly judicious and solid the more I examine them.

In view of my published writings, the question that can most rightly be asked is the very one that you put to me. All the knowledge we can have of the human soul depend on two facts about it: **(1)** the fact that it thinks, and **(2)** the fact that being united to the body it can act and be acted on along with it.

[For 'act' French has *agir* and for 'be acted on' it has *pâtir*, for which there is no equivalent verb in English. The verb-pair

agir—*pâtir*

is linked to the English noun-pair

'agent'—'patient'

in a now-obsolete sense of 'patient', and to the noun-pair

'action'—'passion'

in a now-obsolete sense of 'passion', and to the adjective-pair

'active'—'passive'

with meanings that are still current.]

I have said almost nothing about **(2)**, focussing entirely on making **(1)** better understood. That is because my principal aim was to show that the soul is distinct from the body, and **(1)** was helpful in showing this whereas **(2)** could have been

harmful ·clouding the issue, distracting the reader·. But I can't hide anything from eyesight as sharp as yours! So I'll try here to explain how I conceive of the soul's union with the body and how it has the power to move the body.

I start by focussing on the fact that we have certain *basic* notions that are like templates on the pattern of which we form all our other knowledge. There are very few of these. In addition to the most general ones—

(1) the notions of being, number, duration, etc.

—which apply to everything we can conceive, we have for the body in particular

(2) only the notion of **extension**, from which follow the notions of shape and movement;

and for the soul alone

(3) only the notion of **thought**, which includes ·the notions of· the perceptions of the understanding and the inclinations of the will;

and finally, for the soul and the body together

(4) only the notion of **their union**, on which depends the notion of the soul's power to move the body and the body's power to act on the soul in causing its sensations and passions.

I observe next that all secure, disciplined human knowledge consists only in keeping these notions well apart from one another, and applying each of them only to the things that it is right for. [Throughout this letter, phrases about a notion's being 'right for' x translate French uses of *appartenir à*, literally meaning that the notion belongs to x.] When we try to explain some difficulty by means of a notion that isn't right for it, we are bound to go wrong; just as we are when we try to explain ·or define· one of these notions in terms of another, because each of them is *basic* and thus can be understood only through itself. The use of the senses has made our notions of extension, shapes and movements much more familiar to us

than our other notions, and just because of that the principal cause of our errors lies in our commonplace attempts to use these notions to explain things that they aren't right for. For example, when we try to use the imagination to conceive the nature of the soul, or when we try to conceive how the soul moves the body in terms of how a body moves a body.

In the *Meditations*, which you were good enough to read, I tried to make conceivable **(3)** the notions that are right for the soul alone, distinguishing them from **(2)** the ones that are right for the body alone; so the first thing that I ought to explain now is how to conceive **(4)** the notions that are right for the union of the soul with the body, separately from **(2)** and **(3)**. It seems to me that what I wrote at the end of my response to the Sixth Objections can help with that; for we can't look for these simple notions anywhere except in our soul, which naturally contains them all, though it doesn't always **(i)** distinguish them from one another or **(ii)** apply them to the objects to which they ought to be applied.

Thus, I think we have until now **(i)** confused the notion of •the soul's power to act on the body with •the body's power to act on other bodies, and have **(ii)** applied them (not to the soul, for we haven't yet known the soul, but) to various qualities of bodies—weight, heat, and so on—which we have imagined to be real, i.e. to have an existence distinct from that of the body •that has them•, and thus to be •substances though we have called them •‘qualities’.

[Descartes here uses 'real'—*réelles*, which comes from the Latin *res* = 'thing'—as a way of saying that we have imagined these •qualities to be •things. He is referring scornfully to a philosophical theory that implies things like this: When cold *x* is placed on red-hot *y*, some of *y*'s heat passes over into *x*. It's not just that *y* cools by as much as *x* heats up, but the very same individual instance of heat that *y* has is acquired by *x*. This theory distinguishes three items:

a concrete particular: the red-hot plate *y*

an abstract universal: heat

an abstract particular: the heat of *y*.

Descartes always rejected this theory of 'real qualities', saying that in treating an individual package (so to speak) of heat as being possessed first by *y* and then by *x* you are treating it as a thing, a substance.]

Trying to understand weight, heat and the rest, we have applied to them •sometimes notions that we have for knowing body and •sometimes ones that we have for knowing the soul, depending on whether we were attributing to them something material or something immaterial. Take for example what happens when we suppose that weight is a 'real quality' about which we know nothing except that it has the power to move the body that has it toward the centre of the earth. •How do we think that **the weight of a rock moves the rock downwards**? We don't think that this happens through a real contact of one surface against another •as though the weight was a hand pushing the rock downwards•! But we have no difficulty in conceiving how it moves the body, nor how the weight and the rock are connected, because we find from our own inner experience that we •already• have a notion that provides just such a connection. But I believe we are misusing this notion when we apply it to weight—which, as I hope to show in my *Physics*, is not a *thing* distinct from the body that has it. For I believe that this notion was given to us for conceiving how **the soul moves the body**.

If I make this explanation any longer I'll be doing an injustice to your incomparable mind, whereas if I let myself think that what I have written so far will be entirely satisfactory to you I'll be guilty of egotism. I'll try to steer between these by saying just this: if I can write or say something that could please you, I will always take it as a great honour to take up a pen or to go to The Hague [where Elisabeth was living at this time] for that purpose. . . . But I can't find here •in your letter• anything that brings into play the Hippocratic oath that you put to me, because everything in the letter deserves to be seen and admired by everyone. •Still, I will conform to the

oath! Your letter is infinitely precious to me, and I'll treat it in the way misers do their treasures: the more they value them the more they hide them, grudging the sight of them to rest of the world and placing their supreme happiness in looking at them. . . .

Elisabeth writes on 10.vi.1643:

Your goodness shows not only in your (of course) pointing out and correcting the faults in my reasoning but also in your using false praise. . . .so as to make the faults less distressing to me. The false praise wasn't necessary: the life I live here. . . .has made me so familiar with my faults that the thought of them doesn't make me *feel* anything beyond the desire to remedy them.

So I am not ashamed to admit that I have found in myself all the causes of error the you mention in your letter, and that I can't yet banish them entirely. That's because the life that I am constrained to lead doesn't let me free up enough time to acquire a habit of meditation in accordance with your rules. The interests of my house (which I must not neglect) and conversations and social obligations (which I can't avoid), inflict so much annoyance and boredom on this weak mind ·of mine· that it is useless for anything else for a long time afterward. [By 'my house' she means the semi-royal family to which she belongs. Her father had been raised in 1620 from his semi-royal status to the title of King of Bohemia, then in a matter of months he lost his kingdom (to the Holy Roman Empire) and the other lands he had ruled (to Spain). He and some of his family took refuge in The Hague, where they were joined by Elisabeth and some of her siblings in the late 1620s. Her father died in battle (fighting on behalf of the King of Sweden) in 1632. The exiled fatherless family was in some ways politically engaged and politically prominent; it was not wealthy.] I hope that this will excuse my stupid inability to grasp ·what you

want me to grasp·. I don't see how

(1) the idea that you used to have about weight can guide us to

(2) the idea we need in order to judge how the (nonextended and immaterial) soul can move the body.

·To put some flesh on the bones of my difficulty·: I don't see why we should be persuaded that

(a) a body **can** be pushed by some immaterial thing

by

(b) the ·supposed· power to carry the body toward the centre of the earth, the 'power' that you used wrongly to attribute to weight which you ·wrongly· took to be a ·real· quality;

rather than being confirmed in the view that

(c) a body **cannot** be pushed by some immaterial thing by the demonstration, which you promise in your physics, that

(d) the way weight operates is nothing like (b).

The old idea about *weight* may be a fiction produced by ignorance of what really moves rocks toward the centre of the earth (it can't claim the special guaranteed truthfulness that the idea of God has!). ·And if we are going to try theorising about the cause of weight·, the argument might go like this:

No material cause ·of weight· presents itself to the senses, so this power must be due to the contrary of what is material, i.e. to an immaterial cause.

But I've never been able to conceive of 'what is immaterial' in any way except as ·the bare negative· 'what is not material', and *that* can't enter into causal relations with matter!

I have to say that I would find it easier to concede matter and extension to the soul than to concede that an immaterial thing could move and be moved by a body. On the one side, if the soul moves the body through *information* [French word], the spirits would have to think, and you say that nothing of

a bodily kind thinks. On the other side, you show in your *Meditations* that the body could move the soul, and yet it is hard to understand that a soul (as you have described souls), having become able and accustomed to reasoning well, can lose all that because of some vaporous condition of the body; and that a soul that can exist without the body, and that has nothing in common with the body, is so governed by it.

But now that you have undertaken to instruct me, I entertain these views only as friends whom I don't expect to keep ·as friends·, assuring myself that you will explain the nature of an immaterial substance and the manner in which it acts and is acted on in the body, making as good a job of this as of all the other things that you have undertaken to teach.

Descartes writes on 28.vi.1643:

I am very obliged to you for your patient willingness to hear me out on a subject which I presented so badly in my previous letter, giving me a chance to fill the gaps in that letter. The chief ones, it seems to me, are these two: **(1)** After distinguishing three sorts of ideas or basic notions each of which is known in its own special way and not by a comparison with the others—i.e. our notions of the soul, of the body, and of the soul's union with the body—I ought to have explained the differences among these three sorts of notions and among the operations of the soul through which we have them, and to have said how we make each of them familiar and easy to us. **(2)** After saying why I brought in the comparison with weight, I ought to have made clear that although one may wish to think of the soul as material (which strictly speaking is just to conceive its union with the body), that wouldn't stop one from realizing that the soul is separable from the body. I think that those cover everything

that you asked me to do in your letter.

First, then, I notice this big difference amongst these three sorts of notions: •The soul is conceived only by the pure intellect; •the body—i.e. extension, shapes and motions—can also be known by the intellect alone, but the knowledge is much better when the intellect is aided by the imagination; and finally the knowledge we get of •what belongs to the soul's union with the body is a very dark affair when it comes from the intellect (whether alone or aided by the imagination), but it is very bright when the senses have a hand in it. ['Dark' and 'Bright' translate adverbs related to the adjectives *obscur* and *clair*. To translate the latter as 'clear' is often wrong: it makes poor sense of many things that Descartes says using *clair*, most notably of his saying that pain is always *clair*, this being his explanation of what *clair* means! His famous emphasis on ideas that are *claires et distinctes* calls for ideas that are vivid and clear (in that order).] That's why people who never come at things in a theoretical way and use only their senses have no doubt that the soul moves the body and that the body acts on the soul. They regard soul and body as a single thing, i.e. they conceive their union. ·I equate those· because conceiving the union between two things is conceiving them as one single thing. Metaphysical thoughts, which exercise the unaided intellect, serve to familiarize us with the notion of the soul; and the study of mathematics, which mainly employs the imagination (in thinking about shapes and motions), accustoms us to form very clear notions of body. But what teaches us how to conceive the soul's union with the body is •the ordinary course of life and conversation and •*not* meditating or studying things that exercise the imagination.

Please don't think that I am joking; I have and always will have too much respect for you to do that. It really is true that the chief rule that I keep to in my studies—the rule that I think has helped me most in my gaining a bit of

knowledge—has been this:

I never spend more than a few hours a •day in the thoughts involving the imagination, or more than a few hours a •year on thoughts that involve the intellect alone. I give all the rest of my time to the relaxation of the senses and the repose of the mind.

[Descartes writes of giving time to the *relâche des sens* which could mean ‘resting the senses’ but probably means ‘resting in ways that involve the senses’.] I count among imagination-involving activities all serious conversations and anything that needs to be done with attention. This is why I have retired to the country. In the busiest city in the world I could have as many hours to myself as I now employ in study, but I couldn’t make such good use of them when my mind was tired by the attention I’d had to give to everyday life’s bustling tangles. I take the liberty of telling you this as an admiring tribute to your ability—in the midst of all the business and cares that come to people who combine great minds with high birth—to apply your mind to the •meditations needed to appreciate the soul’s distinctness from the body.

•I wrote as I did because• I judged that it was these •meditations, rather than those other intellectually less demanding thoughts, that led you to find obscurity in our notion of their union; because it seems to me that the human mind *can’t* conceive

the soul’s **(a)** distinctness from the body and its **(b)** union with the body,

conceiving them very clearly and both at the same time. That is because this requires one to conceive them as **(b)** one single thing and at the same time as **(a)** two things, which is contradictory. •When I wrote my letter• I thought you still had at the forefront of your mind the reasons which prove that **(a)** the soul is distinct from the body; and I didn’t want to ask you to push them aside so as to bring to the fore the

notion of **(b)** their union that everyone always experiences within himself without philosophizing—•simply• by knowing that he is a single person who has both body and thought whose natures are such that this thought can move the body and can sense what happens to the body. *That* is why in my letter I brought in a comparison with weight and the other qualities that we commonly imagine to be united to some bodies just as thought is united to our own. It was an imperfect comparison, because weight and those other qualities are not ‘real’ though we imagine them as being so [See note on page 3]; but I wasn’t troubled by that because I thought that you were already completely convinced that the soul is a substance distinct from body.

But since you remark that it is easier to attribute matter and extension to the soul than to credit it with the capacity to move and be moved by the body without having matter, please feel free to attribute this matter and extension to the soul—because that’s what it is to conceive it as united to the body. Once you have formed a proper conception of this and experienced it in yourself, you’ll find it easy to realize that

- the matter you’ll have attributed to a thought is not the thought itself, and
- the extension of this matter is of a different nature from the extension of this thought (because the former is pinned to a definite location which it occupies so as to keep out all other bodily extension, which is not the case with the latter).

So you won’t find it hard to return to the knowledge of the soul’s distinctness from the body in spite of having conceived their union.

[Four points about the above indented passage. •The switch from ‘soul’ to ‘thought’ is Descartes’s; you might like to think about why he switched.

•The passage may explain why Descartes has spoken of ‘attributing matter to the soul’ rather than, more naturally, ‘attributing materiality

to the soul'. Could the indented passage be rewritten so as not to need the concrete noun 'matter'? •What Descartes says about 'the extension of this matter' is what he would say about the extension of *any* matter. •Is Descartes implying that thoughts do have extension, though not the *Other extended things: Keep out!* kind of extension that bodies have?]

I believe that it is very necessary to have properly understood the principles of metaphysics •once in a lifetime, because they are what give us knowledge of God and of our soul. I also think that •someone's• •frequently focussing his intellect on them would be very harmful, because it would unfit him for handling well the functions of the imagination and the senses. The best course, I think, is to settle for keeping in one's memory and one's belief-system the conclusions that one did once drawn from metaphysical principles, and then employ the rest of one's study time to thoughts in which the intellect co-operates with the imagination and the senses.

My great devotion to your service makes me hope that my frankness won't displease you. I would have written at greater length, trying to clear up all at once the difficulties you have raised, if it weren't that... [and then he reports on the distractions of a legal problem arising from a public dispute he has had with Gisbertus Voetius, a Dutch theologian who had attacked Descartes and arranged for a formal denunciation of his philosophy at the University of Utrecht, of which he was the head].

Elisabeth writes on 1.vii.1643:

I gather that the high value I put on your teachings, and my desire to profit from them, haven't put you to as much trouble as you have had from the ingratitude of people who deprive themselves of your teachings and want to deprive the human race of them. I wasn't going to send you •my

last letter.—new evidence of my ignorance!—until I heard that you were done with those obstinate dogmatists; but M. Van Bergen kindly agreed to stay on in town here until he could have •and take to you• a reply to your letter of 28 June—which gives me a clear view of the three kinds of notions we have, their objects, and how we should make use of them—and that obliged me to get on with it.

I find •from your letter• that the senses show me **that** the soul moves the body, but as for **how** it does so, the senses tell me nothing about that, any more than the intellect and the imagination do. This leads me to think that the soul has properties that we don't know—which might overturn your doctrine, of which I was persuaded by your excellent arguments in the *Meditations*, that the soul is not extended. This doubt seems to be supported by the rule that you give there for handling issues of truth and falsity, •saying• that all our errors come from our forming judgments about things that we don't perceive well enough. Although extension is not necessary to •thought, it isn't inconsistent with it either; so it may flow from •something else that the soul does that is no less essential to it •than thought is•. [In that sentence, 'flow from' is a guess. The original has *duire à*, which isn't French. The great Descartes editors Adam and Tannery conjecture *nuire à* = 'clash with', but that reverses what seems clearly to be the main thrust of what the Princess is saying.] At least it—the thesis that the soul is extended—pulls down the •self•-contradictory doctrine of the scholastics that the soul is entirely present in the whole body and entirely present in each of its parts. As for the thesis itself, I plead guilty to having confused the notion of the soul with that of the body for the same reason that the vulgar do; but this •acknowledgment of error• still leaves me with my initial doubt, •i.e. my thinking that perhaps after all the soul is extended•, and if you—who single-handedly kept me from being a sceptic—don't clear away this doubt

to which my first reasoning carried me, I'll lose hope of ever being certain of anything.

I *owe* you this confession. . . ., but I would think it very imprudent if I didn't already know—from my own experience and from your reputation—that your kindness and generosity are equal to the rest of your merits. You couldn't have matched up to your reputation in a more obliging way than through the clarifications and advice you have given to me, which I prize among the greatest treasures I could have.

The letters of xi.1643:

[No reply by Descartes to the foregoing letter has been found.

[He sent to the Princess a certain problem in geometry; she gave a solution to it that Descartes was told about; he wrote at length, explaining why his own first solution was less elegant than hers was said to be; she sent own solution, which Descartes heralded as 'very like the one I proposed in my *Geometry*'; and he wrote at length about the advantages of elegance and economy in mathematical proofs.

[This evidently all happened in November 1643; some of the letters involved have been lost; the three that survive—two by him, one by her—are omitted from this version of the Correspondence.

[The next letter that we have was written half a year later, by Descartes. It responds to one by Elisabeth that we do not have.]

Descartes writes on 8.vii.1644:

My voyage ·to Paris· couldn't involve any misfortune when I had the good fortune of making it while being alive in your memory. The very flattering letter ·from you· that testifies to this is the most precious thing I could have received in this

country. It would have made me perfectly happy if it hadn't told me that the illness you had before I left The Hague has lingered on in the form of stomach troubles. The remedies you have chosen—involving •diet and •exercise—are in my opinion the best of all. Well, they are the best (all things considered) *after* the remedies of •the soul, which certainly has great power over the body, as is shown by the big changes that anger, fear, and the other passions arouse in it. But when the soul conducts the animal spirits to the places where they can help or harm, it does this not by directly willing the spirits to go in those ways but by willing or thinking of something else. For our body is so constructed that certain movements in it follow naturally upon certain thoughts: as we see that blushes follows from shame, tears from compassion, and laughter from joy. I know of no thought more conducive to continuing health than a strong conviction that our body is so well constructed that once we are healthy we can't easily fall ill—unless we engage in some excess or are harmed by air pollution or some other external cause. [In that sentence 'a strong •conviction' translates Descartes's double phrase '*une forte persuasion et ferme créance*'; it isn't obvious what two concepts are involved in this.] Someone who is ill can restore his health solely by the power of nature, especially when he is still young. This •conviction is certainly much truer and more reasonable than the view of some people—I have *seen* this happen—who are influenced by an astrologer or a physician to think they must die in a certain amount of time, and are caused purely by this belief to become sick and even, often enough, to die. I couldn't help being extremely sad if I thought that you were still unwell; I prefer to hope that the illness is all over; but my desire to be certain about this makes me eager to return to Holland.

I plan to leave here in four or five days, to go to Poitou and Brittany where I must do the ·family· business that brought

me here. As soon as I have put my affairs in order, I'll be very anxious to return to the region where I have had the happy honour of occasionally speaking with you. There are many people here whom I honour and esteem, but I haven't yet seen anything to keep me here.

Descartes writes in Latin in vii.1644

[This is a dedicatory letter to the Princess that Descartes put at the beginning of his *Principles of Philosophy*.]

The biggest reward I have received from my published writings is that you have been so good as to read them, for that has led to my being admitted into the circle of your acquaintance, which has given me such a knowledge of your talents that I think that it would be a service to mankind to record them as an example to posterity. I wouldn't lower myself to use flattery or to assert anything that hasn't been thoroughly scrutinized, especially in a work in which I shall be trying to lay down the foundations of the truth. And I know that your generous and modest nature will prefer the simple undecorated judgment of a philosopher to the polished compliments of those with smoother tongues. So I shall write only what I know to be true either through reason or from experience, and I shall philosophize here ·in this dedicatory letter· just as I do throughout the rest of the book.

[In this paragraph and the next, 'vice' means quite generally 'morally wrong behaviour'; it doesn't have built into its meaning *any* of the further associations that the word 'vice' tends to have these days.] There's a great difference between apparent virtues and true ones. . . . What I call 'apparent virtues' are •certain relatively unusual vices that are ·extreme· opposites of other better known vices, with the related virtues occupying a position intermediate between the two. Because •they are further from their

opposite vices than the virtues are, they are usually praised more highly ·than the related virtues are·. Here are some examples. (1) It more often happens that someone timidly flees from danger than that someone rashly throws himself into it; so •rashness is contrasted with the vice of timidity as if •it were a virtue, and is commonly valued more highly than true courage ·which is intermediate between timidity and rashness·. ·The same mechanism is at work when· (2) someone who is over-generous is more highly praised than one who gives liberally ·because his conduct is further from the vice of meanness than is the virtuous conduct of the merely liberal giver·. . . .

There is also a division within the true virtues, between ones that arise solely from knowledge of what is right and ones that come partly from some error. Examples of the latter class of virtues:

goodness that is a result of naivety,
piety that comes from fear,
courage that comes from the loss of hope.

Because such virtues differ from each other, they have different names; whereas the pure and genuine virtues that come entirely from knowledge of what is right all have the very same nature and are covered by the single term 'wisdom'. The person who is firmly and effectively resolved always to use his reasoning powers correctly, as far as he can, and to do whatever he knows to be best, is the person who is as wise as his nature allows him to be. And simply because of this ·wisdom·, he will have justice, courage, temperance, and all the other virtues—all interlinked in such a way that no one of them stands out among the others. Such virtues are far superior to the ones that owe their distinguishing marks to some admixture of vice, but they usually receive less praise because common people are less aware of them. [The shift from 'come partly from *error*' to 'have some admixture of *vice*'

is not a product of this version; it is there in the original.]

The kind of wisdom I have described has two prerequisites: •the perceptiveness of the intellect and the •disposition of the will. If something depends on the will, anybody can do it; but •the same doesn't hold for intellectual perceptions, because •some people have much keener intellectual vision than others. Someone who is by nature a little slow in his thinking and •therefore• ignorant on many points can nevertheless be wise in his own way and thus find great favour with God; all that is needed is for him to make a firm and steady decision to do his utmost to acquire knowledge of what is right, and always to pursue what he judges to be right. Still, he won't rise to the level of those who are firmly resolved to act rightly and have very sharp intellects combined with the utmost zeal for acquiring knowledge.

That you have that kind of zeal is clear from the fact that you haven't been prevented from studying all the worthwhile arts and sciences by the diversions of the royal household or the customary upbringing that so often condemns girls to ignorance. And the outstanding—the *incomparable*—sharpness of your intellect is obvious from your probing examination of all the secrets of these sciences, and from your getting mastery of their details in such a short time. I in particular have even greater evidence of your powers in the fact that you are the only person I have so far found who has completely everything understood I have so far published. Many other people, including ones with high intelligence and great learning, find my works very obscure. In most cases, someone who is accomplished in metaphysics hates geometry, whereas those who have mastered geometry don't grasp what I have written on First Philosophy [= 'metaphysics']. I'm right to use the word 'incomparable': yours is the *only* intellect I have encountered that finds everything equally clear. [He adds some praise of the princess's youth and

beauty.] I see that everything required for perfect and sublime wisdom, both in intellect and in will, shines forth in your character. Along with your royal dignity you show an extraordinary kindness and gentleness which, though continually buffeted by the blows of fortune [see note on page 4], has never become embittered or broken. I am so overwhelmed by this that I want this statement of my philosophy to be offered and dedicated to the wisdom that I so admire in you—for philosophy is just the study of wisdom.

Elisabeth writes on 1.viii.1644:

[This was written after the Princess had received a copy of the *Principles of Philosophy* including the foregoing dedicatory letter.]

I have to thank you for the presentation copy that M. Van Bergen gave me on your behalf, and my conscience tells me sternly that I won't be able to thank you adequately! If I had received from it only the benefit it brings to our century—this century which owes you everything that earlier centuries have paid to innovators in the sciences, since you alone have demonstrated that there are any—my debt to you would be big enough. But •what does my debt-level rise to when you have given me, along with your instruction, a share in your glory through your public declaration of your friendship and your approval? [The words 'that there are any' preserve the ambiguity of the French. The Princess may have meant 'that there are any innovations', but it seems likelier that she meant 'that there are any sciences'.] The pedants will say that you'll have to build a new morality in order to make me worthy of it! [She means '... to be worthy of your praise'.] But •no new morality is needed•. My life is guided by the rule:

Inform your intellect, and follow the good it acquaints you with.

I feel that I am only in the early stages of this process, but they win your approval there ·in your letter of dedication·. My attempt to follow this rule is what gives me my understanding of your works, which are obscure only to people who look at them very carelessly, or examine them by Aristotle's principles. For example, the intellectually ablest of our professors in this country have admitted to me that they haven't yet given any attention to your works because they are too old to start a new method, having exhausted their powers of body and the mind in the old one.

But I'm afraid that you will (rightly!) retract your high opinion of my ability to grasp things when you find out that I don't understand how quicksilver is constituted. ·My difficulty about that comes from the fact that· quicksilver is ·as agitated as it is and ·as heavy as it is, both at the same time. That conflicts with your definition of *weight* ·in *Principles* 4:20–23·. [She then refers to Descartes's account of quicksilver in 4:58 and challenges what she thinks is Descartes's explanation of a thing's lightness/heaviness in terms of what is below it, not of what is above it. This is a misreading of what Descartes wrote.]

The second difficulty that I encountered in trying to see how the particles that are twisted into the shape of shells can pass through the centre of the earth without being bent or disfigured by the fire that is there. . . . [This refers to Descartes's explanation of magnetism in 4:133, where he says that it depends on an unceasing 'vortex' of tiny screw-shaped particles that ·pass through correspondingly shaped passages through the centre of the earth, ·can't go back the way they came, and so travel halfway around the world and re-enter the passages that fit them.] The only way they could be saved from deformation would be by going very fast, but ·that explanation isn't open to you, because· you say in *Principles* 3:88. . . .that these are the least agitated parts of the first element which flow in this way through the globules of the

second. I am equally surprised that they take such a long route, along the surface of the earth, to get from one pole back to the other; they could have found a shorter route [and she indicates what it is, in terms of a diagram in *Principles* 4:59].

I'm presenting here only the reasons for ·my doubts about matters in your book; the reasons for ·my wonder are innumerable, as are also my reasons for being obliged to you—including your kindness in telling me of your news and in giving me rules for keeping healthy. The news—of the great success of your voyage, and of your continuing to plan to return—has brought me much joy, and the rules have brought me much profit, because I have already felt the benefit of them.

Descartes writes in viii.1644:

The honour that you do me in not being displeased at my venturing to express in public how much I esteem and honour you is greater, and obliges me more, than any honour I could receive from any other source. I'm not afraid of being accused of having adjusted morality so as to make my views on this subject understood; because what I wrote about it is so true and so clear that I'm sure that every reasonable man accepts it. [The 'subject' in question is presumably morality.] But I'm afraid that what I have put in the rest of the book is more dubious and more obscure, since *you* find difficulties in it.

The difficulty about the weight of quicksilver is very considerable, and I would have tried to clear it up ·with some plausible conjecture· if I hadn't been afraid of saying something contrary to what I might learn later on when I had examined the nature of this metal more than I have up to now. All can say about it now is that I'm convinced that the little particles of air, of water, and of all the other

terrestrial bodies have many pores through which extremely finely divided matter can pass; and this follows well enough from how, according to me, these particles are formed. So I can explain why quicksilver and other metals are heavy by saying that their particles have fewer such pores. Suppose that ·for purposes of argument· we admit that particles of water have the same size and shape as those of quicksilver, and move in a similar way, all we need for an explanation of how quicksilver is bound to be much heavier than water is to suppose that •each particle of water is like a little cord that is very soft and loose while the •particles of quicksilver, having fewer pores, are like other cords that are much harder and tighter.

As for the little •particles shaped like shells, it's not surprising that they aren't destroyed by the fire at the centre of the earth. That's because this fire, which is entirely made up of extremely finely divided matter, can quite well carry •them very fast but can't make them crash up against other hard bodies; and that is what would be required to break or to divide them.

As for your other difficulty: these shell-like particles *don't* take a long way around to return from one pole to the other. In my account, most of them pass through the centre of the earth! The only particles that return through our air are ones that can't find any passage through the centre. This is how I explain why the magnetic strength of the entire mass of the earth doesn't appear to us to be as strong as that of little magnetic stones.

If everything I write here is very confusing, I beg you to forgive me. You kindly indicated which pages of the *Principles of Philosophy* you were speaking about; but I am still travelling and don't have the book with me. I hope to have the honour of paying my respects to you in The Hague in two or three months.

Descartes writes on 18.v.1645

I was extremely surprised to learn from letters of M. Pollot that you have been ill for a long time, and I curse my solitude, which led to my not knowing anything of this sooner. I really am so removed from the world that I don't learn anything about what is going on. Still, my zeal for serving you wouldn't have let me go so long without knowing the state of your health, even if I had to go to The Hague just to inquire about it, if it weren't for this:

M. Pollot sent me a quick note about two months ago, promising to send a follow-up letter by the next regular mail. When no such letter arrived, I supposed that your health was holding steady, because Pollot never neglects to send me news of how you are doing.

But I learned from his most recent letters that you have had a low-grade fever, accompanied by a dry cough, which lasted three or four weeks, and that after five or six days of remission this illness returned. Right at the time when he sent me that letter (which took almost fifteen days to reach me) you were beginning to get better once again, ·as I learn from his even more recent letter·. I see in all this the signs of such a considerable illness (though you can certainly recover from it) that I cannot refrain from writing to tell you my view of the matter. I'm not a physician; but the honour you did me last summer of wanting to know my opinion about another illness that you then had makes me hope that you won't mind the liberty that I am now taking.

The most common cause of a low-grade fever is sadness; and fortune's stubborn *persistence* in persecuting your family gives you •sources of distress that are so public and so conspicuous that I don't have to conjecture very much or to be particularly experienced in social matters to judge that •they are the principal cause of your illness. [This refers to the

coming of civil war in England, which threatened the financial support that the English government had been giving to the shaky finances of Elisabeth's family; and also posed a threat to her uncle, Charles I of England, who did indeed lose his life over it four years later—see note on page 67.]

I would be afraid that you couldn't recover from this, if it weren't for the fact that you keep your soul content despite fortune's blows, doing this through the power of your virtue. I'm well aware that it would be unwise to try to cheer someone to whom fortune sends new occasions for grief each day. . . . I know also that you are much less affected by what concerns you personally than by what concerns the interests of your family and the persons you are care about—which I take to be the most lovable of all your virtues. What chiefly marks off the greatest souls from low-level vulgar ones, it seems to me, is that

vulgar souls give themselves over to their passions and are happy or sad purely according to whether what happens to them is agreeable or unpleasant;

whereas

great souls reason so powerfully that—although they too have passions, which are often more violent than those of the vulgar—their reason remains in command and brings it about that even afflictions serve them and contribute to the perfect happiness that they can enjoy ·not merely in the after-life but· already in this life.

Here is how they do it. They bear in mind •that they are immortal and capable of receiving very great contentment, and on the other hand •that they are joined to mortal and fragile bodies that are bound to perish in a few years; so they do whatever they can to make fortune favourable in this

life, but they value this life so little from the perspective of eternity that they give ·worldly· events no more consideration than we give to events on the stage. Just as the sad stories that we weep to see represented on a stage often entertain us as much as happy ones, so the greatest souls get an inner satisfaction from *all* the things that happen to them, even the most distressing and unbearable. When they feel pain in their bodies they try hard to put up with it, and this show of their strength is agreeable to them. Seeing a friend in some great trouble they feel compassion at the friend's ill fortune and do all they can to rescue him from it, and they aren't afraid of risking death if that is necessary for this purpose. But the sadness that their compassion brings doesn't afflict them, because they are *happy* over the testimony of their conscience, which tells them that they are doing their duty, acting in a manner that is praiseworthy and virtuous. In short, just as the greatest prosperity of fortune never intoxicates them or makes them insolent, so also the greatest adversities can't defeat them or make them so sad that the body to which they are joined falls ill.

If I were writing to anyone but you I would be afraid that writing in this style is ridiculous; but I regard you as the noblest and most upstanding soul I know, so I think you should also be the happiest; and you really *will* be so if you cast your eyes on what is right under you and compare the value of the goods that you have—which can never be taken away from you—with the value of the goods that fortune has snatched away from you and the losses that fortune has inflicted on you through your near and dear. Then you will see all the many reasons you have to be content with the goods that you have.