

Descartes and the Mind-Body Problem

Mind-body problem

1. Uniqueness of mind's relation to one among all bodies. The senses present objects to me, including one that seems to have an especially intimate relation to me, namely, the body I deem my own. This "One body in particular has never been separated from me; I felt all my appetites and emotions in and on account of this body, but not in other bodies external to it." **This unique relationship between a mind and a body is what Descartes means by "HUMAN BEING"**, and the greatest part of the Sixth Meditation is devoted to its investigation.

The question is: how can things so utterly different in nature as a thinking being and corporeal being, each acting and acted upon in incommensurate ways (thought vs. motion), enter into so intimate union – a union that includes causal interaction between them? In particular, how can anything that acts only by thinking exert effects on something that can be acted upon only by being moved? And how can anything that acts only by moving exert effects on something that can be acted upon only through feelings (sensations, passions)? This is the mind-body problem

2. Arbitrariness of relation between outer and inner sense. One thing that was never quite clear to me was why "that curious sensation of pain should give rise to a particular distress of mind; or why a certain kind of delight should follow on a tickling sensation; why that curious tugging in the stomach which I call hunger should tell me I should eat, or a dryness in the throat tell me to drink; and so on. I was not able to give any explanation of all this, except that nature taught me so. For there is absolutely *no connection (at least that I can understand)* between the tugging sensation and the decision to take food, or between the sensation of something causing pain and the mental apprehension of distress that arises from that sensation."

Descartes's point is that these correlations seem curiously **arbitrary**, in much the same way the words of our language are arbitrary signs for the things they signify (there is however an important difference: although arbitrary, the relation between the sensation of hunger and the desire for food is *natural*, i.e. it never has to be learned and is beyond our power to change). Isn't it arbitrary that a certain tugging sensation felt in the stomach should correlate with the creation in our minds of a desire for food? Why not with a desire to drink, to wash, to sleep, or to copulate? I.e. isn't the bodily sensation we call 'hunger' so named only because of the desire in the mind that correlates to it, such that if it so happened that this same sensation correlated with a desire to drink, it would have been called 'thirst'?

These correlations differ from the action of one body on another, e.g., when a particle traveling at a certain speed through a vacuum strikes a stationary particle at a certain angle, the reaction of the particle struck can only be of one kind: it must necessarily move at the same speed in a determinate direction. There is nothing whatsoever arbitrary about the effect of this cause: the particle struck *can* only move and move only in one direction, at only one speed. It can't, given the laws of nature, do anything else, e.g. it can't turn into wedding cake upon being struck. Causation between bodies is therefore **necessary**, whereas causation between a body and a mind is always **arbitrary**.

3. So just as things might have existed even if no language to name them or discourse about them had ever existed, so too any body, including our own, might in theory exist without any mind to react to the sensations that occur in it: the sensation that creates in our minds the desire for food might not only have created some other desire (say, for water) but *no desire at all*. And by this I don't mean blasé indifference; I mean that no mind need be in any way privy to the sensations of my human organism, or your human organism, or any human organism. The point is that if our bodies were to lose all relation to minds, there is no reason to suppose that these bodies would be in any way affected, i.e. that their sense organs couldn't continue to be affected by ambient light, sound, skin contact, etc., and convey impulses from the sense organs through the nerves to the central nervous system for processing and the generation of appropriate behavioral responses (the very same that would occur if there were a mind along for the ride).

4. According to Descartes, this is exactly how things stand with animals: their bodies have the same sensations we do, but they lack minds: there is literally no one home – no self, no person present in animals to behold the sensations, to experience them, to become conscious of them (like a film shown in an empty theater). Thus, the behavior that looks to us like aversion and desire, distress and delight, indifference and interest, is in fact just a hard-wired programmed response, like a machine.

5. The point is that the complex entity called a 'human being' involves a unique relation between two other fully independent entities, a mind and a human body: a species of **interaction** that is at once *natural* (unlike language) but also *arbitrary* (unlike the causal interaction of one body with another body, where only motion can follow motion, and the properties of the motion can only be those which correlate to the properties of the impacting body).

6. Now, because of the arbitrariness of this relation, Descartes believed that would be impossible ever to bring the mind-body interaction within the purview of science. In any chain of physical causes, one can only find one particle or set of particles communicating their motion to another particle or set of particles: so that even if the chain were to proceed to infinity, we would never reach anything but still other motions of particles, i.e. we would never reach desires and aversions, distresses and delights, etc.

7. In particular, even though certain of these motions do generate certain sensations (hunger, thirst, color, sound, etc.), scientists can never know this from the human corporeal organism accessible to them (brains, etc.) because no matter how much they may discover about them, they can never know what sensations correspond to them in the mind related to that organism; they are instead dependent on the mind to tell them what such or such stimulus of the brain feels (looks, smells, tastes, etc.) like.

8. To make this clearer, imagine **robotic** scientists – without minds of their own, but sophisticated cognitive processing powers that allow them to generate new knowledge far more efficiently than the best human scientists can. They are ordered to examine living human bodies without any previous acquaintance with creatures like us. Question: would these scientists ever be able to deduce that there was a conscious subject with a unified perspective underlying all that complex neuro-physiology? Or might they not discover nothing fundamentally different between doings in the brain and doings in other parts of the body?

9. Clearly: scientific methods, unaided by the assumptions that come with verbal testimony, would never suspect the existence of the “**ghost in the machine**”: the **SUBJECT** together with its sensory perspective (the sensations it notices and reacts to).

This conception is usually referred to as **Cartesian dualism**: sensations go with the body, not with the mind, but they only exist from the perspective of the mind – the ghost in the machine – apart from not even an infinite knowledge of corporeal things such as brains could ever lead to the discovery of the existence of sensations (colors, tastes, smells, feels, etc.).

Essential to the idea is the subject and the subjective point of view: only for the subject, the ghost in the machine, do sensations as such exist. Yes, they have a physical basis. Yes, they are emergent properties that can exist only on the basis of many levels of physical complexity of the appropriate kind (the brain as a particular kind of organization of cells, the cells as a particular kind of organization of their parts, these parts as organizations of their parts and so on down to the molecular, atomic, etc., levels). But what is unique about sensations, memories, imagery, etc., is that they can emerge only at the level of consciousness, from the point of view of a conscious subject that notices them and thinks about what it notices.

Thus, apart from conscious subjects, sensations are indistinguishable from the states of physical systems that scientists investigate when they investigate sensory states: that is, there is no way to distinguish them because their causes and effects are indistinguishable. Not until a subject exists to notice and react to the sensations as such is there a difference: i.e. the difference emerges only at the level where a conscious subject emerges upon the scene, is factored into our ontology.

10. The upshot of Cartesian dualism is that sensations exist only for a mind, only relative to a mind, but the mind, as such, is independent of the sensations. In other words, when the Cartesian dualist asks whether the mind can exist independently of the body, he is talking about something that is distinct from sensation, memory, imagination, and all the other faculties that, in his view, are emergent corporeal phenomena.

A disembodied mind is therefore an entity limited to two things: intellect and passions. The ability to perceive and to react to what it perceives with desire or aversion, delight or distress, interest or indifference.

Substantial union

1. From the standpoint of Cartesian dualism, sensations and similar emergent corporeal phenomena, which cannot emerge except in relation to a conscious subject, exist neither for the sake of the body as such nor for the mind as such but for the unique entity constituted by their special union. In particular...

2. If from a purely corporeal perspective sensations and similar emergent corporeal phenomena are as good as nonexistent (i.e. they are nothing independently of certain complex neuro-physiological states of the brain – i.e. they have no effects in the world distinct from those of such a state – unless there is a subject to notice and react to them), **living organisms are different only in the specifics and complexity of their organization, but not different in kind (essentially), from those complex physical systems we would term ‘inanimate’.**

3. Similarly, from the perspective of the mind that, according to Descartes, is capable of existing independently of the body and all its phenomena (emergent included), sensations are of minimal use. It is true that there are certain things we could not know without them – sun, stars, our own bodies included. But if the *Meditations* have shown us anything it is that sensations and similar emergent phenomena of the human body are incapable of affording us clear and distinct perceptions of these things.

Indeed, our perception only approaches clarity and distinctness to the extent we succeed in replacing our sensory imagery with strictly defined intellectual ideas, the more intellectual the better (which, for practical purposes, means: the more pure quantitative and fully mathematizable the better).

4. The gist is that from sensations and such like we learn nothing whatsoever about what the corporeal world is like. Differences we observe in our sensations (differences of color, shade, tone, pitch, scent, flavor, etc.) do, according to Descartes, *correspond* to differences in things, but they in no way *resemble* the quality of these things.

We can learn nothing whatsoever about the properties of physical things from the properties of our sensations; and judgments made on the assumption that there is anything similar between them are invariably false, although they do not necessarily mislead us when it comes to action, because they tend to be sensitive to the **differences** indicated by the qualities as well as to the **qualities** themselves.¹

So while sensations supply information that the intellect can put to use to understand the corporeal world, they are in no sense a window on that world. And if this is not recognized, then sensations (the look and feel of the world) will constantly lead us into making hasty judgments about what the world is really like.

5. If the actual contents of sensation can do nothing for us except confuse us, then why do they exist? Why did God create human beings this way? The purpose of sensations is to regulate our actions to the needs of our body. Sensations correlate to mental responses, in the form of desires (for food) and aversions (against lions and other predators), which in turn to prompt us to act in certain ways (consume, flee).

6. Sensations are divinely instituted signs for ideas in the mind that lead us to perform certain actions the purpose of which is not to enable us, as *minds*, to know corporeal reality clearly and distinctly but to enable us, as *human beings*, to act in the ways best suited to keep body and soul together.

At the *conative* level of striving to survive, thrive, and reproduce, the contents of sensations are indispensable: they allow us to get by precisely where cognitive knowledge is lacking: where we are obliged to get by on instinct, by conditioned response-type learning, being trained to act, etc.

¹"I am taught by nature that various other bodies exist in the vicinity of my body, and that some of these are to be sought out and others avoided. And from the fact that I perceive by my senses a great variety of colors, sounds, smells, and tastes, as well as differences in heat, hardness and the like, I am correct in inferring that the bodies which are source of these various sensory perceptions possess differences **corresponding** to them, though perhaps not **resembling** them." *Structural, not qualitative, agreement.*

But for *cognitive* knowledge properly so called – the understanding of corporeal reality as it actually is – we have to ignore completely everything relating to the sensations themselves, and use our **intellect** to deduce what the world is like by correlating the differences we observe in our sensations with differences in the world.

7. Thus, the idea of the sun garnered by astronomy is a far superior idea to that we obtain by the senses from a cognitive perspective, whereas the idea we get from the senses is far superior conatively (e.g. we seek shade at noon in midsummer).

Dream argument solution

1. Descartes's solution to the skepticism of the dream argument is a case in point. When we ignore the contents of sensations (which are useful only *conatively*) and apply our intellects to the examination of the distinctions present in our sensations, we find that our experience divides into two segments: one highly coherent, constant, predictable; the other far less coherent, far less constant, and quite unpredictable. The first we term wakeful experience, the second dreams.

2. To establish the veracity of wakeful experience against First Meditation dream skepticism Descartes is perfectly happy to bring God into the picture:

(i) Are we equipped with any faculty besides the intellect that can determine whether the distinction our intellects draw between wakeful and dream experience is false?

(ii) The answer being no, it follows that God made us so that we have no faculty by which to detect the error in this distinction. So, if the distinction were false, and all our experience were a dream, would it not follow that God made us so that the nature of our minds condemned us to error regarding the difference between wakeful experience and dreaming?

(iii) That, however, would mean that God is a deceiver, which is impossible. Consequently, the distinction between dreaming and wakefulness must be genuine.

3. What is true of the dream argument is true of our beliefs in the existence of an external world, both (i) as corresponding to the true and immutable natures cognized in the clear and distinct perceptions accessible (uniquely) to mathematicians (see argument II below), and (ii) as corresponding to the confusedly known objects of the actual cosmos made to known to us via our senses (see argument III below).

4. The two arguments correspond to two kinds of scientific picture: the theoreticians' view, which is intended to be applicable to any possible material universe (of which the actual universe is merely one), and the experimentalist's view, which is intended to tell us the properties specific to the actual universe. The second is dependent on the senses to a far greater extent than the first, and, for Descartes this means that by far the better picture is that of the theoretician (cognitively, if not conatively).

Some Sixth Meditation Arguments

I. Argument for the possibility of the existence of disembodied minds

1) Everything I can clearly and distinctly perceive, God is capable of creating. For the natural light assures me beyond any possibility of doubt that whatever entity is *possible* (i.e. known, beyond any possibility of doubt, to be nonchimerical), an omnipotent being is capable of creating; hence, I can at least be certain that everything I clearly and distinctly perceive is **possible**.

2) If two substances can be clearly and distinctly understood *independently* of one another, then that is sufficient “to make me certain that the two things are **distinct**, since they are capable of being **separated**,” at least by an omnipotent God. [NB. This inference to the possibility of their distinct existence does not depend on our being able to specify “what kind of power [i.e. cause] is required to bring about such a separation.” So, even if we grant that we have no distinct idea at all as to *how* such a separation is possible, this does not prevent us from perceiving clearly and distinctly *that* it must be within the power of an omnipotent being.]

3) An extended being can have only such modes as shape, size, mobility, and number. Insofar as it can be conceived to act or be acted upon, it is only by means of motion.

4) A thinking being can have only such modes as intellect, will, sense perception, feeling, and imagination. Insofar as it can be conceived to act or be acted upon, it can only be by means of these modes (e.g. volition and feeling, i.e. mental acts and affects).

5) Extension is incompatible with all the modes of thought: judgments, desires, feelings, etc., do not occupy or contain space, have no spatial location or spatially distinct parts, and so cannot be supposed to move, be moved, or otherwise act or be acted on by corporeal things (mental ideas and images of corporeal things no more partake of the corporeal properties of the things they represent than a portrait in oils on canvas has the properties of a human being). For the same reasons, thought is incompatible with the modes of extension: a spherical structure is not a feeling, a cubical structure not a memory, a lattice structure not a judgment, etc.; i.e. a perfect knowledge of geometry would not afford one the slightest inkling that such a thing as thought is possible at all.

6) Accordingly, the essences of extended things and of thinking things are distinct and independent.

7) Since, in self-consciousness, “I have a clear and distinct idea of myself, insofar as I am simply a thinking, non-extended being,” it follows that if, as I have always believed, I have a body, this body cannot be *essentially* bound up with my nature as a thinking being.

8) From pure mathematics, “I have a distinct idea of body insofar as this is simply an extended, non-thinking thing.”

9) Extension and thinking are *essentially* incompatible attributes of substances. [Clear and distinct perception of thinking substance in the Second Meditation required that we exclude from its nature everything pertaining to extension, so that we limit our concept of it to intellect, will (judgment, choice), sense, feeling, imagination, memory, urges, passions, and desires. By contrast, clear and distinct perception of extension in geometry requires that we exclude from its nature everything pertaining to thinking, and restrict our concept of it to such properties as

limitation (by points, lines, or planes); shape; size; divisibility into enumerable (measurable) parts; location; and change of location (motion).]

10) Since from this it follows that I clearly and distinctly conceive the natures (essences) of my mind and my body fully independently of one another, I can conclude that “I am really distinct from my body, and can exist without it,” even if only via the power of God.

II. Argument for the existence of material things in general (i.e. the formally real existence of the objects conceived in the clear and distinct ideas that figure in mathematics)

1) The senses and imagination are powers (faculties, capacities) of my mind.

2) These powers do not pertain to the essence of intellectual substance; for, as emerged in the Second Meditation, the senses and imagination are in no way implicated in the clear and distinct perception that I, as thinking being, exist.

3) Hence, “I can clearly and distinctly understand myself as a whole without these powers, but I cannot, conversely, understand these powers without me, that is, without an intellectual substance to inhere in.”

4) Senses and imagination are simply “modes or accidents” of a thinking being, in the same sense in which particular shapes and movements are accidents of the body they inhere in (e.g. the shape of the wax in a candle, the position of a car on the road).

5) My power of sense perception permits me to receive images of sensible objects and to form ideas of particular corporeal things through them (the beeswax, the sun, this table, that tree, my hand, etc.).

6) These ideas could not exist in me unless there was also an *active* power to produce them corresponding to my passive power to receive them.

7) This power to produce sensible ideas must lie either in my own active thinking substance, or it must lie in a substance distinct from me.

8) Insofar as I am thinking being, the only active power of which I am capable is intellectual activity: acts of conception (such as the intellectual perception of the piece of wax through the data furnished by the senses and imagination) and will (affirming, denying, or withholding judgment; seeking, avoiding, or refraining from doing either).

9) Since sensible ideas arise in me without any intellectual act having to be performed by me beforehand, I cannot be the active power responsible for the existence of these ideas. [*If one were to object that we might be producing sensible ideas without being aware of our so doing (e.g. dreams), Descartes would reply as follows. Since my nature inclines me to believe that I am not the cause of these ideas, and since I lack any faculty by which to detect that I am their cause, the existence in me of such a faculty of sensible ideas would be possible only if God, the creator of my nature, were a deceiver. However, since deception is incompatible with God’s nature, I can therefore know with perfect certainty that I am not the cause of sensible ideas.*]

10) “So the only alternative is that it [i.e. the power to produce sensible ideas in me] is in another substance distinct from me – a substance which contains ... all the reality which exists objectively in the ideas produced by this power.”

11) Insofar as they are clearly and distinctly perceived, ideas of sensible objects contain ideas of extension and its various modes: shape, size, volume; enumerable parts; location, local motion (from place to place), and duration of states of motion and rest (by contrast, color, warm/cool,

soft/hard, odor, sound, flavor, pain and pleasure are not clearly and distinctly perceived, and so have to be excluded from this reasoning).

12) Accordingly, an external substance that contains the active power to produce these ideas *formally* (i.e. a cause of the same essence as the essence represented in these ideas) is “a body, that is, a corporeal nature.” By contrast, if that power actually lies in an external thinking substance, then it will be contained in it only *eminently*.

13) God, my creator, has not equipped my mind with any faculty whereby I may recognize an eminently real source of sensible ideas of corporeal nature; “quite the contrary, he has given me a great [*natural*] propensity to believe that they are produced by corporeal things.”

14) Although this belief has been shown in Meditations 1, 2, 3, and (earlier in) 6 not to be founded on clear and distinct perception, we at least do have certainty that God is not a deceiver. Yet, “I do not see how God could be understood to be anything but a deceiver if sensible ideas of corporeal things were transmitted to me from a source other than corporeal things.” [*God gave me the propensity to believe it; he gave me no means of discovering the falsity of this belief; therefore, the only way my belief could be mistaken is if God is, after all, a deceiver; that, however, has already been clearly and distinctly perceived to be impossible.*]

15) Sensible ideas of corporeal natures must consequently be produced in me by the very same formally real causes that (i) I am naturally predisposed to believe cause their existence and which (ii) I am incapable of discovering to be false.

16) Therefore, “corporeal things exist.”

Descartes’s gloss on the meaning of this conclusion: “They may not all exist in a way that precisely corresponds with my sensory grasp of them, for in many cases the grasp of the senses is very obscure and confused. But at least they possess all the properties which I clearly and distinctly understand, that is, all those which, viewed **in general terms**, are comprised within the subject-matter of pure mathematics.”

Note #1: This is a proof, then, that the corporeal natures (essences) validated in the Fifth Meditation – extension as comprehended in pure geometry – actually exist. Whether any of the *particular* objects we believe to exist in the real world – on the basis of experience (rather than via pure mathematics – actually do exist remains an open question (e.g. sun, stars, earth, trees, men, even my own body – their existence will be demonstrated in argument III below). So, if the foregoing argument is accepted as sound, it proves only the existence of material things *in general* and *as such*, but this or that material thing, or any classification of empirical things into kinds that depends on marks of distinction knowable only a posteriori (through sense experience).

Note #2: The argument only proves that material objects must have existed at *some* time for me to have the ideas I in fact do; it does not prove anything about the *present* moment (e.g. I may indeed be dreaming, hallucinating, drugged, etc.). The reason is that factors such as these (dreaming etc.) are sources of illusion I am capable of discovering by the employment of the faculties with which my Creator has endowed me, whereas the argument above merely insulates me against errors I am incapable of discovering by their means. Yet, for Descartes’s purposes this is quite sufficient: it eliminates the *universal* doubt regarding the reliability of the senses on which Descartes based his skepticism regarding the external world in the First Meditation. For while I may be mistaken in this or that instance when I judge that a corporeal thing is the cause of my sense perception, I can never be universally mistaken whenever I rely on my senses to

form judgments about the external world, since such an error would be both (i) contrary to my natural belief and (ii) beyond my power to discover it.

III. Argument that particular material things in nature (human and animal bodies, trees, sun, sky, stars, etc.), as encountered through sense experience (rather than as described in pure mathematics), exist

- 1) Because sense perceptions tend to be confused or even obscure, doubt here is far greater than with respect to corporeal things as viewed exclusively through the lens of the clear and distinct perceptions afforded by pure mathematics.
- 2) Yet, “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 by some other power [of mind] supplied [to me] by God, offers me sure hope that I can attain the truth even in these matters.”
- 3) In particular, since I know God is not a deceiver, I know that everything I am taught by my nature to believe contains at least *some* truth in it.
- 4) In accordance with the method of finding truth established in the Fourth Meditation, I must now strive to strip away as much of the confusion brought about by my senses and imagination as possible (even if it is beyond my power to eliminate all of it).
- 5) Not all things that appear to be taught us by nature in fact are. Instead, they result “from a habit of ill-considered judgments.” To this class belong all the judgments that presuppose a resemblance between the qualities of perceptions and the qualities of objects: color, taste, smell, warmth, and hardness; apparent (vs. real) size, relative (vs. absolute) motion, etc.
- 6) To remedy this, I have no recourse but to employ the *intellect* with which God has endowed me to uncover as many falsehoods as possible that result from the bad habits of judgment I acquired prior to undertaking these Meditations. For what belongs to my nature as a thinking being is geared towards understanding things truly, in clear and distinct perceptions, whereas senses, imagination, and whatever else belongs to my nature insofar as I may be united to a human body, is geared primarily towards survival and only secondarily to knowledge.
- 7) Accordingly, by applying my intellect to the inputs of the senses and imagination as scrupulously as possible, with the aid of as much mathematics as I may have at my command, I can arrive at a *clearer*, if not *fully* distinct, idea of particular corporeal existents. For example, the reckoning of astronomers about the size and distance of the sun is the result of applying clear and distinct ideas of intellect to the data of the senses and imagination in such a way as to correct precipitate judgments based on first appearances. In the same way, the application of the intellect has taught us not to base our judgments regarding the shape and movement of the earth on the appearances of the senses: we have thus been able to discover that it is a rotating sphere in orbit around the sun. Intellect alone, therefore, can take us beyond first appearances to a more reliable, coherent, and unified understanding of the phenomena of nature.
- 8) Since God created me with no faculty other than intellect by which to discover the errors of judgment based on the first appearances of the senses, I have no means by which to correct the judgments arrived at by the scrupulous application of intellect to natural phenomena except intellect itself.
- 9) If a scrupulous application of the intellect to the first appearances of the senses always resulted in deceptions and never brought us nearer to clear and distinct perceptions of corporeal

things, then, my natural belief to the contrary, together with my lack of any capacity to detect the falsity of this belief, would imply that God, my creator, is a deceiver.

10) God is not a deceiver.

11) Consequently, the application of intellect to correct judgments based on first appearances must be esteemed a *generally* reliable method for discovering which particular objects exist in nature and what properties they have, even if the perception obtained in this (empirical) manner never attains the full measure of clarity and distinctness possible a priori by means of mathematics.

12) Therefore, I can be certain that particular objects, corresponding in some measure to my ideas of sun, stars, terrestrial flora and fauna, soil, rock, water, and so forth, really exist in nature.

Corollary #1: my own body exists since “There is nothing that my own nature teaches me more vividly than that I have a body... So I should not doubt that there is some truth in this.”

Corollary #2: since I now know that I can rely on my faculty of intellect to allay the doubts that arise in the course of experience, its scrupulous use enables me to establish and apply criteria by which to distinguish wakeful experience from dreaming (esp. the coherence of what I am experiencing now with what I remember having experienced in the past). Thus, the skepticism founded on the dream argument can at last be laid to rest: the reliability of my senses can be established by means of my intellect, so that, subject to its guidance, the data furnished by the senses constitute a sound basis for judgments about the external world.