

mind is your body, and (by 11) it actually exists. [A second paragraph argues unconvincingly for the 'and nothing else' part of the proposition.]

**Corollary:** A man consists of a mind and a body, and the human body exists as we are aware of it. [This does not mean that it exists *because* we are aware of it, or *insofar as* we are aware of it. The Latin clearly implies that our awareness of our bodies in some way or to some extent represents them truthfully; and that is the meaning required for the only mention of this corollary in the rest of the work, namely in the note on 17.]

**Note on 13:** From these propositions we understand not only *that* the human mind is united to the body, but also *what* that union of mind and body consists in. But no-one will be able to understand this adequately or clearly unless he first knows enough about the nature of our body. For the things I have shown up to here have been completely general and apply not only to man but to other individuals (though all individuals are to some degree alive). Of *each* thing there must be an idea in God, of which God is the cause in the same way as God causes the idea of the human body; so everything I have said so far about the idea of the human body also holds for the idea of any thing.

Still, we can't deny that ideas differ among themselves, just as the objects of ideas do, and that one *idea* is more excellent and contains more reality than another *idea*, just as *the object of* the former is more excellent and contains more reality than *the object of* the latter. And so (I repeat) **to determine how the human mind differs from the others, and how it excels them, we must know the nature of its object, that is, of the human body.** I can't explain this here, nor do I need to for the things I want to demonstrate. But I shall make this general remark:

To the extent that a body is more capable than others of doing many things at once, or of being acted on in many

ways at once, to that extent its mind is more capable than others of perceiving many things at once. And to the extent that the actions of a body depend more on itself alone, and less on input from other bodies, to that extent its mind is more capable of understanding clearly.

From this we can know the excellence of one mind over the others, and also see why we have only a completely confused knowledge of our body, and many other things that I shall deduce in the following propositions. For this reason I have thought it worthwhile to explain and demonstrate these things more accurately. To do this I need first to premise a few things about the nature of bodies.

### Physical interlude.

A1': All bodies either move or are at rest.

A2': Each body moves now more slowly, now more quickly.

L1: Bodies are distinguished from one another by differences of motion and rest, of speed and slowness, and not by differences of substance.

I suppose that the first part of this is self-evident. As for the second part: that bodies are not distinguished by differences of substance is evident both from 15 and from 18. But it is more clearly evident from what I said in the note on 15.

L2: All bodies agree in certain things.

For all bodies agree in that they involve the concept of one and the same attribute (by D1), namely extension, and in that they can move more or less quickly and can be at rest.

L3: A body that moves or is at rest must be caused to move or stop moving by another body, which has also been caused to

move or stop moving by another, and that again by another, and so on, to infinity.

[The demonstration of this is omitted. It relies, in a fairly obvious way, on **128** and **6**.]

**Corollary:** A body in motion moves until another body causes it to rest; and a body at rest remains at rest until another body causes it to move.

This is also self-evident. For when I suppose that body *x* is at rest, and don't attend to any other body in motion, all I can say about *x* is that it is at rest. If later on *x* moves, that of course couldn't have come about from its being at rest! So it must have come about through the intervention of some other body.

If on the other hand *x* is moving, then while we attend only to *x* we can affirm nothing about it except that it moves. If later on it is at rest, that of course also couldn't have come about from the motion it had. So it must have come about through some external cause.

**A1**": *How* a body is affected by another body depends on the natures of each; so that one body may be moved differently according to differences in the nature of the bodies moving it. And conversely, different bodies may be moved differently by one and the same body.

**A2**": When a body in motion collides with another that is at rest and can't give way, then it is reflected, so that it continues to move; and the reflected motion will make the same angle with the surface of the resting body as did the line of the motion leading to the collision. This is enough about the simplest bodies, that are distinguished from one another only by motion and rest, speed and slowness. Now let us move up to composite bodies.

**The Definition:**

When a number of bodies, whether of the same or of different size, are constrained by other bodies in such a way that

- they lie on one another, and
- if they move (at the same speed or different speeds) they communicate their motions to each other in a certain fixed manner,

I shall say that those bodies are 'united' with one another and that they all together compose one 'body' or 'individual', which is distinguished from others by the structure of this union of bodies.

**A3**": The parts of an individual or composite body can be forced to change their relative positions more or less easily depending on whether they lie on one another over a smaller or larger surface. So the bodies whose parts lie on one another over a large surface, I call 'hard'; those whose parts lie on one another over a small surface I call 'soft'; and those whose parts are in motion I call 'fluid'.

[Spinoza next offers four lemmas about 'individuals', evidently thinking mainly about organisms. They provide for the fact that an organism can (4) have a turnover of its constituent matter, e.g. by ingestion and excretion, (5) become larger or smaller, (6) move its limbs and change its posture, and (7) move from place to place.]

**L4**: When a body or individual loses some of its parts which are replaced by others of the same nature, the body or individual will retain its nature as before, with no change in its form.

Bodies are not distinguished by difference of substance; what constitutes the form of the individual consists in the union of the bodies that are its parts (by The Definition); and this union is retained even if a continual change of constituent bodies occurs. So the individual will retain its nature, as before, through

such a change.

L5: If the parts composing an individual become larger or smaller, but in such a proportion that they all keep the same ratio of motion and rest to each other as before, then the individual will retain its nature, as before, without any change of form.

The demonstration of this is the same as that of L4.

L6: If certain bodies composing an individual are compelled to alter the direction of their motion, but in such a way that they continue their motions and communicate them to each other in the same ratio as before, the individual will retain its nature, without any change of form.

This is self-evident. For in this case the individual retains everything that I said in The Definition constitutes its form.

L7: Such an individual retains its nature so long as each part retains its motion and communicates it to the other parts as before, whether it as a whole moves or is at rest, and in whatever direction it moves.

This is also evident from The Definition.

**Note on L4–7:** Now we can see how a composite individual can be altered in many ways while still preserving its nature. So far we have been thinking of an individual that is composed only of *the simplest bodies*, namely ones differing from one another only by motion and rest, speed and slowness. If we now turn to an individual composed of a number of *individuals with different natures*, we shall find that this *too* can be altered in a great many other ways while still preserving its nature. For since each part of it is composed of a number of *simpler* bodies, each part (by L7) can without any change of *its* nature move at varying speeds and consequently communicate its motion at varying speeds to the others.

If we now turn to a third kind of individual, composed of many individuals of the second kind, we shall find that it *also* can be altered in many other ways while still retaining its form. And if we carry this line of thought on to infinity, we shall easily grasp that the whole of Nature is one individual whose parts—that is, all bodies—vary in infinite ways without any change of the whole individual.

If my topic had been the human body, I would have had to explain and demonstrate these things more fully. But as I explained my topic is something different—*namely, the mind*—and I brought up these points only because they can help me to demonstrate things that are part of my proper topic.

### Postulates

P1. A human body is composed of a great many individuals of different natures, each of which is highly composite.

P2. Some of the individuals of which a human body is composed are fluid, some soft, some hard.

P3. The individuals composing a human body are affected by external bodies in very many ways, and so, therefore, is the body as a whole.

P4. For a human body to be preserved, it needs a great many other bodies by which it is continually regenerated, so to speak.

P5. When a fluid part of a human body is acted on by an external body so that it frequently pushes against a soft part *of the body*, it changes its surface and impresses *on the soft part* certain traces of the external body.

P6. A human body can move and arrange external bodies in a great many ways.