## Lecture 2

## **Definition of Motion**

283. After first setting down certain things necessary for investigating the definition of motion, the Philosopher now defines motion:

In general;

More specifically, at 325.

With regard to the first, he does two things:

He shows what motion is:

He inquires whether motion belongs to the mover or to the mobile thing, at 299.

As to the first of these, he does three things:

He gives the definition of motion;

He explains the parts of the definition, at 287.

He shows that it is a good definition, at 291.

As to the first, he does two things:

He gives the definition of motion;

He gives examples, at 286.

284. As to the first, one must understand that some have defined motion by saying that motion is "a going-out from potency to act which is not sudden." But they are found to be in error, because they have placed in the definition certain elements that are posterior to motion: for a "going-out" is a species of motion; "sudden," likewise, involves time in its definition—the "sudden" is that which occurs in the indivisible of time [i.e., the instant]; time, however, is defined in terms of motion.

285. Consequently it is entirely impossible to define motion in terms of what is prior and better known otherwise than the Philosopher here does. For it has been pointed out already that every genus is divided by potency and act. Now potency and act, since they are among the first differences of being, are naturally prior to motion, and it is these that the Philosopher uses to define motion.

Consider, therefore, that something is in act only, something is in potency only, something else is midway between potency and act. What is in potency only is not yet being moved; what is already in perfect act is not being moved but has already been moved. Consequently, that is being moved which is midway between pure potency and act, which is partly in potency and partly in act—as is evident in alteration. [or when water is only potentially hot, it is not being moved; when it has now been heated, the motion of heating is finished; but when it possesses "some heat, through imperfectly, then it is being moved—for whatever is being heated gradually acquires heat step by step. Therefore this imperfect act of heat existing in a heatable object is motion—not, indeed, by reason of what the heatable object has already become, but inasmuch as, being already in act, it has an order to a further act. For should this order to a further act be taken away, the act already present, however, imperfect, would be the term of motion and not motion

itself—as happens when something becomes half-heated. This order to a further act belongs to the thing that is in potency to it.

Similarly, if the imperfect act were considered solely as ordered to a further act, under its aspect of potency, it would not have the nature of motion but of a principle of motion—for heating can begin from either a cold or a lukewarm object.

The imperfect act, therefore, has the character of motion both insofar as is compared, as potency, to a further act, and insofar as it is compared, as act, to something more imperfect.

Hence, motion is neither the potency of a thing existing in potency, nor the act of a thing in act, but it is the act of a thing in potency; where the word "act" designates its relation to a prior potency, and the words "of a thing in potency" designates its relation to a further act.

Whence the Philosopher most aptly defines motion as the *entelechy*, i.e., the act, of a thing existing in potency insofar as it is in potency.

286. Then [195] he gives examples from all the species of motion—as, for example, alteration is the act of the alterable insofar as it is alterable.

And because motion in quantity and in substance does not have a single name in the same way as motion in quality is called "alteration," he gives two different names for the motions in quantity, and says that the act of the increasable, and of its opposite, i.e., the decreasable, for which two there is no common name, is "increase" and "decrease." Similarly, the acts of the generable and of the corruptible are "generation" and "corruption"; and the act of what is mutable in regard to place is called "change of place."

In this section the Philosopher uses the word "motion" for any kind of change and avoids the strict usage in which "motion" is distinct from "generation" and "corruption," as will be said in Book V.

287. Then [196] he explains the several words of the definition:

He explains the use of the word "act"; He explains "of a thing existing in potency," at 288. He explains "insofar as it is such," at 289.

As to the first he uses this reasoning. That by which something previously existing in potency becomes actual is an act. But something becomes actual when it is being moved, although previously it was in potency. Therefore motion is an act.

He says therefore that it is plain that motion is an act from the fact that the "buildable" implies a potency to something, but when the "buildable" according to this potency which it implies, is being reduced to act, we then say it is "being built"—and this act is "building" taken passively. And the same thing is true in all other motions such as indoctrination, healing, rolling, jumping, youth (i.e., increase),old age (i.e., decrease).

For it must be remembered that before something is being moved it is in potency to two acts: to a perfect act which is the term of the motion, and to an imperfect act which is motion itself. Thus water, before it begins to be heated, is in potency to being heated and to having been heated:

when it is being heated it is being reduced to the imperfect act which is motion but not yet to perfect act which is the term of the motion—rather, in respect to this it still remains in potency.

288. Then [1977 he shows that motion is the act "of a thing existing in potency."

For every act is strictly the act of that in which it is always found—as light is never found but in the transparent, for which reason it is the act of the transparent. But motion is found always in a thing existing in potency. Therefore, motion is the act of a thing existing in potency.

To explain the second proposition he says that, since certain same things are both in potency and in act, although not at the same time, nor in the same respect—as, for example, something is hot actually and cold potentially it follows that many things mutually act and are acted upon insofar, namely, as both are in potency and in act with respect to the other under different aspects. And because all lower natural bodies share the same matter, there is therefore in each of them a potency to what is actual in another. Hence, in all such bodies something simultaneously acts and is acted upon, both moves and is moved.

This fact had led some to say absolutely that every mover is likewise being moved. This point will be cleared up in a later place. For it will be shown in *Physics* VIII (1.9 ff.) and in *Metaphysics* XII (1.7) that there exists an immobile mover, since it is not in potency but in act only.

But when that which is in potency, yet existing in a certain way in act, either acts itself or is acted upon by another so far as it is movable, i.e., is reduced to the act of motion, whether moved by itself or by another, at such time motion is its act. That is why things in potency, whether they act or are acted upon, are moved, since when acting they are acted upon and when moving they are being moved—just as fire, when it acts on logs, it acted upon, insofar as it becomes more dense through smoke, flame being nothing more than smoke afire.

289. Then [198] he explains this part of the definition, "insofar as it is such":

By an example;

By giving a reason, at 290.

He says therefore first that the phrase, "insofar as it is such," had to be added, because what is in potency is at the same time something in act. And although the subject which is both in potency and in act may be the same, nevertheless to be in potency and to be in act is not contained under the same notion. Thus, although brass is a statue in potency but is brass actually, nevertheless the notion of the brass as brass is not the same as the notion of the brass as it is in potency to a statue. Now motion is not an act of the brass insofar as it is brass but insofar as it is in potency to a statue; otherwise, during the whole time that it was brass it would be undergoing motion, which is clearly false. That is why it is necessary to add "insofar as it is such."

290. Then [199] he explains the same thing by using an argument based on the nature of contraries. For it is clear that a given subject is in potency to contraries—as a humor or the blood is in potency to health and to sickness. But to be in potency to health is one thing and to be in potency to sickness is another, if one considers their objects. Otherwise, if to be able to be sick and to be able to be well were the same thing, it then would follow that being sick and being well would be the same. Hence to be able to be sick and to be able to be healthy are different notions, although their actual subject is one and the same thing.

It is plain, therefore, that there is not one and the same notion of the subject as it is a certain being, and as it is in potency to something else. Otherwise, potency to contrary things would fall under one and the same notion. In like manner, the notion of that which is "color" and that which is "visible" are not one and the same.

Thus it was necessary to say that motion is the act of the possible "insofar as it is possible"—to prevent supposing that it is the act of what is in potency insofar as it is merely some subject.