On Spinoza's Conception of Time

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Spinoza developed his philosophy as a correction of his earlier following of Descartes. Descartes postulated that God, and two substances, thought and matter, extended in space-time, constituted the three components of the universe. Spinoza maintained that thought and extension were attributes of the same substance, which he identified with God, or Nature. The power of God is the dynamic power of this self-creating substance. Thought, as an attribute of Nature – to be distinguished from human thoughts – is represented by the laws of nature. Every thing created by the power of God-Nature is a modification of substance. Such a thing retains that part of God's power that maintains its own existence. However, its actual existence is always a result of complex causal interactions of several things acting by several laws. Therefore, Spinoza defines the duration of a thing as an 'indefinite continuation of existing' [E. II, definition V].

It is indefinite because this continued existence does not follow from the nature of the thing itself [C. XII]. It is because our mind is incapable of grasping such complexity that, already at the level of perception, it abstracts essential features of those things which recognizing their effects on us is essential for our survival [TCU VI and XIV]. This is the reason we must be satisfied with knowing the world by its abstract logical structure, as it is best represented in mathematical equations, where the relations between things are reduced to the relations between their essential features by which they exist.

Descartes distinguished between objective and formal knowledge. The former is derived from known objects, and the latter – like his analytic geometry – provides knowledge of space that cannot be derived from objective knowledge. Spinoza agreed with Descartes that objective knowledge presupposes some formal knowledge, but only of the most general features of the universe by which we understand it. Apart from such general features, of which one is the conception of time, all knowledge of the world, including mathematically formulated knowledge, is objective knowledge. For example, we would not know the essence of a parabola – namely its mathematical equation in a coordinate system – without first knowing parabolas. And we know parabolas because they exist [part III of PCP (p.99)].

Most remarkable among Spinoza's corrections of Descartes, is the correction of his claim that, in order to have a method on which we can rely, he had to prove the necessary existence of God, who imposed order on his creation. According to Spinoza, all we need is to acknowledge our natural tendency to reduce all knowledge into one idea, the object of which is understood as God's creation. The phrase 'the object of which' requires to say something about Spinoza's theory of mind.

In part II of the Ethics, proposition xiii says: "The object of the idea constituting the human mind is the body, or a certain mode of extension actually existing and nothing else." In other words, the concept 'mind' represents the totality of our ideas. Each idea represents an object of consciousness, not necessarily of thought. For example, when we feel hungry, we are conscious of certain physical changes in the body, combined with a tendency – part of the body's conatus – to restore the body to its natural capacity. This tendency is experienced as a desire combined with an idea how to do so. The latter involves ideas whose objects exist, i.e. 'have some mode of extension,' outside the body. The 'nothing else' is his claim that the function of the mind is to maintain the natural capacity of a person to act according to his internal power. Creating the knowledge how to do so, is the function of thinking.

A corollary of this conception of the mind is that, on the level of thought, the natural desire is to create a coherent idea of Nature with ourselves in it. According to Spinoza, the best way to fulfil this desire is to start from the ideas naturally characterizing our understanding, and, by using our natural power of reason, proceed to include all knowledge, while its forming a coherent conception of Nature provides a standard of truth [TCU VII]. The problem is that, although from his conception of human nature follows that in principle true ideas must be naturally embedded in our minds we do not directly know what they are. He explains that to say that to have a certain idea is natural is not to say that knowing it is easy to come by. A fact he compares to knowledge of the body, which everybody agrees that whatever happens in it is natural, but our knowledge of it is limited and difficult to gain [TCU IV].

Concerning the concept of time, then, we must distinguish between a postulated undefined but naturally known conception of time, and the various conceptions of duration, which being objective knowledge, may differ with their 'objects.' While the concept of duration, he adds, presupposes created things, the concept of time presupposes both created things and thinking men [MT pp.95 and 129].

The presupposed thinking man is important because, when we contemplate the essential properties of objects we soon realise that we naturally have different conceptions of their durations. Obvious examples are a cyclical conception of the durations of the seasons of the year and of alternating days and nights, compared to the linear perception of a succession of sounds conceived as a melody, or the perception of successive phases in our child's development which we conceive as changes in one and the same person. But, according to Spinoza, having a formal, undefined concept of time is the condition for the very possibility of having any of these perceptions or conceptions of duration. Without it we would not even have memories of related events. Since the origin of this notion of time is in the human mind, it presupposes a thinking man. The presupposed thinking man is also important because we may err not only about our formal innate ideas, but also about our presupposed standard of truth. In the appendix to chapter I in Ethics, Spinoza explains how his contemporaries' tendency to create a unifying conception of Nature had led to such error. In other words, the assumed correctness of knowledge may change when one standard of truth is replaced by another.

A correct presupposed conception of Nature which serves as a standard of truth is essential for creating true science [C. VI]. Yet, we must realize that the natural forces which led his contemporaries to create their comprehensive view are as natural as his own. The only way to distinguish between them is to rely on a dialectical method, based on the clear assumption that the more we

understand the nature of our understanding, the better we can understand Nature, and the more we understand Nature, the better we shall understand ourselves. In this spirit, Spinoza listed the properties of our understanding, which he could consider essential by relying on his present knowledge [TCU XV].

The third item in this list says that having a conception of a 3- dimensional space must be a property of our understanding because, it cannot not only be derived by induction from known spatial relations, but every such relation must presuppose it. The fifth item is a generalization of the former: when ideas are formed by understanding, the mind regards all things under 'certain species of eternity,' without considering their duration or number. This is contrary to things imagined or perceived, where things always have a definite spatial extension, duration and number. Spinoza's phrase 'a certain species of eternity' can be understood as the notion of an independent variable as used in statistics: abstractly, we think of it independently of any other variable. What mathematics does is to correlate the ways they in fact interact. Time is such a variable.

According to Spinoza, we can discover these independent components of understanding by a method of conceptual reduction – by analysing each concept to its components until we reach those which cannot be further analysed. As the given examples of duration show, the fundamental concepts are not confined to any particular domain of knowledge. The concept of time must represent what is common to the duration of a season and a melody irrespective of other factors which determine their existence.

Although he deals with conceptual reduction, Spinoza insists that those concepts which enter scientific knowledge must represent real physical things [TCU XIV]. He explains that it is difficult to think of any abstract concept [like 'time'] as of a real physical thing because, being present everywhere, it is more easily conceived as a universal term – as nominalists say, as a name we give to all observed durations. In TCU XIII, Spinoza defines the conditions for considering such universal terms as real 'uncreated' properties of substance. 'Uncreated' means that, like substance itself, they have no cause outside themselves. These conditions are: I.No object outside it should be needed for explaining its definition. II.When the definition is given, no doubt should remain about whether or not it exists. III.It must contain no substantives which can be turned into adjectives. IV.All its properties should be concluded from its definition.

Since time is conceived independently of any other concept, condition I is satisfied. Similarly, condition II seems to be satisfied because some conception of time is always used in mathematical equations in physics, so we never doubt its existence. However, Spinoza repeatedly warns that we cannot deduce properties of reality from an understanding derived by reflection on their essence alone [C.IX]. He accepted Descartes' discovery that thinking is the essence of our being, in spite of its discovery by reflection alone, because, in this case, our awareness provides all the evidence we need and can have. But concerning knowledge of the world, he approved of the new scientists in England, who refused to deduce properties of the world from formal analysis, as Descartes did. This approval of empirical science is the meaning of Spinoza's comment after his statement of condition III, that it means the same as a warning that a thing ought not be explained by abstractions. Although today no scientist will derive a methodological rule from grammatical terms, condition III suggests that from the fact that we need words [though, in this case, not adjectives] for judging whether an event occurs before, after or simultaneously with another event, we should not deduce that a noun derived from them necessarily names a unique physical entity.

Condition IV is most clearly concerned with scientific theory, rather than with the real world. Since the rule concerns the most general concepts, applicable to all theories, they must agree with the general view of reality which serves as the ultimate standard of truth. However, since this unity of science is a result of the natural function of reason to create it, these concepts might be what Spinoza calls instruments of our mind. How do we know whether the concept of time is not merely a useful construct of our minds, which might be either wrong or non-existent? According to Spinoza, we know that it must represent a real and unique physical entity only if we accept his conception of Nature. This follows from his definition of life, as "the force through which things persevere in their own being" [MT p.120], from which he derives his definition of the mind; the tendency to create a coherent system of knowledge, and the best method to do so [p.2].This method is based on the realization that the more we correlate true ideas to 'their objects' in reality, the more it becomes clear that things that are logically dependent (or independent) are also causally related (or unrelated) in reality; and conversely, the more we observe that things are causally related (or unrelated) in reality the more we understand that they must be logically related (or unrelated) in thought. Methodologically this means that the more we understand that the concept of time is a most general instrument of the mind necessary for creating a logically coherent science, the more we understand that it must be found in causal explanations of all conceptions of duration. And the opposite assertion means that this instrument of reason can be discovered by reflecting on what is logically common to all known causes of the durations of their various 'objects' [pp.2 and 3]. If a definition of time can be derived so that, as the fourth requirement says, all notions of duration follow from it, we have sufficient justification for considering it a true conception of a real component of the universe.

The crux of the matter is that all this is valid provided Spinoza's metaphysical conception of Nature is accepted. According to Spinoza, the more one interacts with one's environment the more true knowledge is necessary for one's survival, a thesis which, in agreement with his conception of the mind, he summarizes in the proposition that the more one interacts with one's environment the more mind one has [E. II, note to proposition xiii]. That this 'more mind' must provide true knowledge which we need for survival, follows from his conception of life [p.4]. Yet, there are many ways by which ideas are formed in the mind. The function of reason is to accept the true and reject the false ones. However, we would not have had concepts embedded in our minds had they not been modifications of a real property of substance [p.1]. This, of course, follows from his naturalistic metaphysics, which cannot be proved. But, as Spinoza claimed, no science is possible without presupposing a general view of nature, even if to the dismay of most modern scientists this means a metaphysical view.

Literature

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