

John Buridan, *Questions on Aristotle's Physics*

Book One, Question 10

Is Socrates the same today as he was yesterday, supposing that today something has been added to him through nutrition and converted into his substance, or supposing that today some part has been removed from him – for instance, if his hand has been amputated?

[*Initial Arguments*]

1. It is argued first that he is not the same, because it would then follow that the whole would be the same as its part, and thus **the whole would be its part**, the opposite of which was asserted in **another question**. The inference is proved by positing that what was added to Socrates today be called *a*, and the remaining whole be called *b*. It is clear that Socrates yesterday was that *b*, and if today he is the same, then he is still that *b*. But yet *b* is a part of him, distinct from *a*.

2. If the hand that is amputated today be called *b*, and the remainder *a*, then Socrates yesterday was *a* and *b*, since **the whole is its parts**. But today he is not *a* and *b*, since *b* has been cut off. Therefore he is not the same as yesterday.

3. It would follow that a whole that was corrupted would remain the same as before. But this is impossible, since it was said in *De generatione* II that what is corrupted cannot return numerically the same. The inference is proved by positing a situation where a jar is full of wine, which wine is posited to contain a hundred or a thousand drops. Then if those thousand drops are corrupted, the whole wine will be corrupted, and yet this same wine will remain. This is proved by positing a situation where, every hour, one of those drops falls out from the bottom and is corrupted, while through the mouth at the

In the previous question, *In Phys.* I.9: Is the whole its parts?

See *In Phys.* I.9

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These first two arguments are very important to Buridan's thinking on this subject. Each relies on a similar looking but distinct principle. Argument 1 relies on the plausible principle that a whole cannot be identical to just a part of the whole. Argument 2 relies on the more controversial principle that a whole is nothing other than the collection of all its parts.

Buridan has essentially our modern understanding of how the process of metabolism leads the entirety of a living thing to undergo replacement, molecule by molecule, over a fairly short stretch of its life.

top one drop is added to replace it. It is then clear that after the removal of the first drop and its replacement by another, it will still be the same wine as before – just as, by parity of reason, Socrates is the same even if something is previously added through nutrition and something else lost when **burned off by heat**. Also by parity of reason, if a further drop is removed and another added it will still be the same wine, and so on without end. Therefore, over the course of a thousand hours all those thousand drops will be corrupted and so the whole of that wine will be corrupted, but yet the same wine will still remain.

[Arguments to the contrary]

1. The opposite is asserted, because Heraclitus’s view would then return – namely, that it is not possible for the same person to enter twice into the same river, because he would continuously change through continual nutrition and would be other than he was before.

2. It would follow that the term ‘Socrates’ would not be a **discrete term**, because it would supposit for many distinct things – albeit prior and posterior as the term ‘time’ does.

3. That which grows remains the same, as Book I sets out. But growth occurs through the addition of parts through nutrition.

4. It would follow that I have at no other time ever seen you, the one whom I see now; rather, I have seen someone else. Acts of injustice would cease, as would retribution for good acts. For you are not the one who struck me yesterday or who defended me yesterday from my enemies. On what basis, then, would I seek amends from you, or on what basis ought I to recompense you?

5. It would follow that you who are here have not been baptized, but rather someone else was. Therefore you are not

This is a technical point taken from medieval semantics. The word ‘Socrates’ appears to refer to one “discrete” thing, the person Socrates. But if Socrates does not remain the same over time, then the term would refer to “many discrete things” over time.

De generatione I.5, 321b11-15.

a Christian.

6. It would follow that on any one day many Socrateses would be corrupted and many others generated, because at this hour *this* Socrates exists and at the previous hour he did not, but rather some other Socrates existed, who now does not exist. Therefore he was generated today and he, that same one, was corrupted, since generation is change from non-existence to existence, and corruption is the converse.

[*Main Reply*]

We are asking not about sameness (*identitas*) with respect to species or genus, but about numerical sameness, according to which ‘this being the same as that’ means that this *is* that. And then the question is easily solved by drawing a distinction. For we are accustomed to say in three ways that something is numerically the same as something.

The first way is by being entirely (*totaliter*) the same – namely, because this is that and there is nothing belonging to the whole of this that does not belong to the whole of the other and vice versa. This is numerical sameness in the strictest sense. According to this way it should be said that I am not the same as I was yesterday, for yesterday there was something that belonged to my whole that has now been dissolved, and something else that yesterday did not belong to my whole which later, by nutrition, was made to belong to my whole substance. And this is what Seneca said in the letter to Lucilius (the one that begins with “Quanta verborum”): “No one is the same in youth and old age, indeed not even yesterday and today. For our bodies are swept along as rivers are.” In this sense Heraclitus well said that we are so continuously changed that it is not possible for someone who is entirely the same to enter twice into a river that is also entirely the same. And when we take ‘numerically the same’ in this way, the arguments go through that were made at the start of the question to prove that Soc-

Throughout, when Buridan asks whether two things are “the same,” he is using the ordinary word ‘*idem*.’

Here, he switches to the abstract noun ‘*identitas*.’ One could translate the whole discussion in terms of whether that which grows remains *identical* (*idem*) or preserves its identity (*identitas*).

Epistulae ad Lucilium LVIII 22

Compare the first argument above to the contrary

rates is not the same today as he was yesterday.

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In a second way, however, one thing is said to be the same as another *partially* – namely, because this is part of that (and this is especially said if it is a major or principal part), or else because this and that share (*participant*) in something that is a major or principal part of each. For in this way Aristotle says in *Ethics* IX that a human being is, above all, the intellect, and a city and every community is, above all, its most principal member, as was set out in the preceding question. From this, too, springs our denominating a whole by denominating its part. And thus a human being remains the same through the entirety of his life because the soul remains entirely the same, and the soul is a principal – indeed the most principal – part. A horse, however, does not remain the same in this way, and indeed neither does the human body. And in this way it is certainly true that you are the same one who was baptized forty years ago – especially since this holds of us principally because of the soul and not the body. Also, I can pursue you for injuries or be required to repay you, because harmful or meritorious deeds also come principally from the soul and not from the body. So too we do not say that you were generated yesterday because we do not say that something is generated absolutely (*simpliciter*) unless it is generated as a whole or with respect to its major or principal part.

This relies critically on the assumption that the human soul, as immaterial and incorruptible, endures through all bodily change. Strikingly, however, Buridan does not think that the souls of other living things, such as a horse, remain the same through change. These souls, and in general substantial forms of all kinds, change as their bodies change, and so Buridan concludes that non-human material substances are not the same over time even in this second, weaker sense.

Compare the fifth argument above to the contrary.

Compare the fourth argument above to the contrary.

Compare the sixth argument above to the contrary.

But in a still third way, less strictly, one thing is said to be numerically the same as another according to the continuity of distinct parts, one in succession after another. In this way the Seine is said to be the same river after a thousand years, although strictly speaking nothing is now a part of the Seine that was part of it ten years ago. For thus the ocean is said to be perpetual, as is the world around us, and a horse is the same through its whole life and likewise so is the human body. And this mode of sameness suffices for a signifying term to be called discrete or singular according to our common and customary mode of speaking. Strictly, however, this mode of

Compare the second argument above to the contrary.

speech is not true. For it is not strictly true that the Seine that I see is the one that I saw ten years ago. Still the proposition is conceded in the sense that the water that we see, which is called the Seine, and the water that I saw then, which was also called the Seine, and also the waters that were there during the intervening times – these were each in its time called the Seine, and each was in continuous succession with the others. It is based on “identity” spoken of according to this sort of continuousness that the term ‘Seine’ is a discrete and singular term, although it is not as strictly discrete as it would be if it remained entirely the same before and after.

Through these claims it is plainly apparent how one should respond to all the arguments that were made, and how they go through in their own ways.

John Buridan

Questions on Aristotle's De generatione et corruptione

Book One, Question 13

From the Latin text
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This question, from a different work, is extremely similar to the previous question from the *Physics* commentary. Because of their brevity and importance, it seems worthwhile to look at both of them.

Does that which grows remain the same absolutely (*simpliciter*), before and after?

It is argued that it does not:

1. The whole is its parts, as is generally said. The parts do not remain the same, however, but instead come and go. Therefore **the question itself** is a false one.

That is, the question contains the false presupposition that a thing can grow

2. If we let that which comes today through growth be called *a*, and the remaining whole be called *b*, it is clear that Socrates is now *a* and *b* together. And yet Socrates yesterday was not *a* and *b*, but *b* alone. Therefore Socrates is not the same today that he was yesterday.

3. That which grows is not the same according to matter, because the material parts come and go, as Aristotle says, and they do not remain the same. Therefore it is not the same according to form, because in a different matter there must be a **different form**, since form does not pass from matter to matter but is instead drawn from the potentiality of its matter. Therefore it is concluded that it is not the same absolutely, since it is, substantially, its matter and form together.

Here we get a quick argument for the assumption of the previous question that the substantial form (aka soul) of a horse (for instance) does not endure through material change.

Gen. et Cor. I 5, 321b25-27

4. If that which grows were to remain the same despite the fact that some of its parts come and others go, it would follow by the same reasoning that the flame of a candle would remain the same up until when the candle melts away. That this is false is clear, since the flame is continuously generated anew and the

preceding flame corrupted. Therefore it is not the same before and after. The initial inference is clear, because just as in something living there is a certain continuity of succession between the parts coming and going, so it is in the flame. Therefore if such continuity were to suffice for material sameness (*identitatem*), that flame would be the same continuously up until the end.

Gen. et Cor. I 5, 321a21-25.

Aristotle says that the opposite should be maintained. And this is argued for by reason:

1. It cannot be said that something grows unless it is less before and greater afterwards. This, however, cannot be if it does not remain the same before and after. For what was not before, was not less before.

2. If a given person did not exist yesterday, then he was brought into existence anew. But that is absurd.

3. The term 'Socrates' would not be a discrete or singular term, inasmuch as it would signify many things. For yesterday it would have been suppositing for one thing, and now for another.

[*Main Reply*]

So *the first conclusion*, then, is that what grows remains the same in species before and after. This is so with regard to the species that is its substantial kind, because if before it was a human being then it is still a human being, and if before it was a donkey it is still a donkey. It is also so with regard to the species of its shape, both for the whole and for its limbs, at least after those limbs have been formed.

The *second conclusion* is that the precise thing that is Socrates today is not entirely (*totaliter*) the same as that which was

precisely Socrates yesterday, because that which was precisely Socrates yesterday lost some parts and gained other parts from without. But a thing is not entirely the same before and after if something has been removed and something added.

See the second initial argument.

This is confirmed in the way it was argued as before: let that which was precisely Socrates yesterday be *a*, and let that which comes to it, through which it grows, be called *b*. It is clear that Socrates is now composed of *a* and *b*. Therefore Socrates is not entirely the same as *a*, and yet he was entirely the same as *a* yesterday. Therefore it is clear that Socrates now is not entirely the same as was Socrates yesterday.

Epistulae ad Lucilium LVIII 22-23.

Seneca expressly holds this view. Hence he says that “It is striking that we take such care over a thing that is as thoroughly fleeting as is our body. For it flows as rivers do and is not the same today as it was yesterday.” Indeed he says: “I, while I speak, am changed, and with respect to my body I am not entirely the same as he who began to speak.”

The *third conclusion* is that a human being, from the start of his life up until the end, remains the same partially – indeed, remains the same **according to** his most noble and principal part, since he remains the same **according to** his intellectual soul, which remains entirely the same forever.

Nicomachean Ethics VII.6, 1150a1-4;
IX.8, 1168b31-34.

From this we can conclude that absolutely speaking and without qualification (*simpliciter loquendo et sine addito*) a human being remains the same from the start of his life up until the end, because we customarily (*solemus*) pick out a thing, absolutely and without qualification, from its most principal part – especially if that most principal part is highly excellent, in the way the intellectual soul excels the body. Hence Aristotle expressly says in *Ethics* VII and IX that a human being is principally his intellect or intellectual soul. And thus a human being is said to be the lover of himself, if he loves his intellectual part. And this is what our faith truly holds, that although the

The Latin preposition ‘secundum’ is crucially vague here. On one way of translating, this passage says that *a human being* is numerically the same “in virtue of” his enduring soul. On another way of translating, the claim would be that a human being is *said* to be numerically the same only “with respect to” the one part that endures, the soul. I render the claim with the blandly neutral “according to..”

bodies of the saints are corrupted and their souls alone are in paradise, still we say that Saint Peter is in paradise, and we say in the litany “Saint Peter, pray for us.”

But I believe that something else should be said about horses and dogs. For I believe that this full-grown horse that precisely exists today, even if it is partially the same as that which was precisely born from its mother’s womb, still it is not the same with respect to its greater part or even with respect to its more principal part. For in the full-grown horse the matter added since its birth is much greater than the matter that was with it at birth – whether we are speaking of the matter in its head, its heart, its brain, or any other bodily part. And since in the case of material forms – that is, those drawn from the potentiality of matter – a form does not pass from matter to matter, so in that full-grown horse there is **much more of the substantial form** (both in the heart and in the brain) that did not exist at birth than there is of the substantial form that did exist. And so it follows that even if there is a partial sameness (*identitas*) between this precise thing and that precise thing, the sameness holds in virtue of lesser or fewer parts. And [it follows] likewise that there is more difference here than sameness.

One might suppose that having the same substantial form is an all-or-nothing question. But Buridan thinks that a whole substantial form is composed of many partial substantial forms, located throughout the living body.

Next, so as to see how a horse remains numerically the same, let us return to Seneca’s view and speak of the horse as we do of a river – except that, as Seneca nicely puts it, a river more quickly and obviously passes and changes, and does so according to more parts at once, whereas a horse does so more slowly and according to fewer parts, and thus less obviously – indeed, it does so imperceptibly.

Hence just as ‘Brunellus’ is a discrete term with its own proper quality, so is the term ‘Seine.’ From this one has to concede that in some way there remains numerically the same thing for which it supposits. And I believe that this numerically sameness is determined by the continual succession of parts arriving anew while the prior parts pass away. So if I say

that “the Seine has endured for a thousand years,” the sense is that for a thousand years there have been parts continuously succeeding other parts. And so it is too for horses and dogs, together with the fact that in such a succession the same or a similar shape always remains. And even if there is no sameness there absolutely, still common folk, to whose senses the coming and going of parts is not apparent – especially in the case of living things – say absolutely and without qualification that the animal remains the same.

With this in view, here is my response to the initial arguments.

The first arguments establish that these things do not remain absolutely the same in such a way that it is true to say that the whole that precisely exists today existed entirely the same yesterday.

The other arguments, for the opposite, establish that a thing remains partially the same, or at least that it remains the same by a sameness asserted from the continuity of the succession of parts succeeding one another through time. They also establish that a thing is commonly said to be the same – speaking absolutely and unqualifiedly – on account of the imperceptibility of the change.

There is no need, on account of these arguments, to concede anything more. Nor is there any force to those appeals in the human case asserting that if you are not the same as you were, then you were not baptized. For it was said that a human being does not remain the same absolutely, but does remain according to his most principal part. This is not so in other cases.