# 10

# Spinoza on Mind, Body, and Numerical Identity

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## 1. Introduction

Spinoza claims that the mind and body are one and the same. But he also claims that the mind thinks and does not move, whereas the body moves and does not think. How can we reconcile these claims?

As a way of sharpening the challenge, let's restate it as a puzzle involving Spinoza's favorite philosophical character: Peter. Spinoza seems committed to both of the following claims:

1a. Peter's body moves and does not think, whereas Peter's mind thinks and does not move.
1b. Peter's body and Peter's mind are numerically identical.

But these claims are mutually inconsistent with the Indiscernibility of Identicals, a principle that many regard as an obvious truth (Sider 2001, p. 4), and perhaps even a logical truth (e.g., Tarski 1994, p. 50).

1c. If *x* and *y* are numerically identical, *x* instantiates a property if and only if *y* instantiates that property.

Which of these claims, if any, would Spinoza reject?

I will argue that Spinoza would reject the Indiscernibility of Identicals. This response might initially seem absurd, given what contemporary philosophers say about it. But Spinoza is working in a medieval Aristotelian tradition that links identity to essence, rather than indiscernibility. In this tradition, *x* and *y* are identical if and only if they share the same essence, regardless of whether they instantiate the same properties. For example,

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Peter's body in the morning is identical to his body at night, because they share the same essence, even though they instantiate different properties at different times, such as moving in the morning and resting at night. I'll argue that Spinoza is using this tradition to develop a new understanding of the mind's relation to the body. In particular, he would say that Peter's body is identical to Peter's mind, because they share the same essence, even though Peter's body only moves and Peter's mind only thinks.

It might help to compare Spinoza's account to Descartes's. As I interpret Spinoza: He agrees with Descartes that the mind and body are numerically identical only if they share the same essence. He also agrees with Descartes that the mind thinks but does not move, while the body moves but does not think. But he disagrees with Descartes about the essence of the mind and body. Unlike Descartes, he denies that the mind's essence is to think and that the body's essence is to be extended. He instead claims that what is essential to the mind and body is a pattern of activity that can be formed by either thoughts or motions. He also disagrees with Descartes about whether sharing the same essence is sufficient for identity. According to Descartes, sharing the same essence isn't enough. For example, my mind and your mind can share the same essence without being identical. Spinoza, however, insists that sharing the same essence is sufficient for identity. Thus, according to Spinoza, the mind and the body are identical because they share the same essence, even though the mind only thinks and the body only moves.

To appreciate why Spinoza might be attracted to such an account, let's briefly consider why he might have regarded it as superior to dualism and materialism. Dualists, such as Descartes, claim that the mind and body are numerically distinct, a view that might seem to preclude the mind and body from constituting a unified human being, because a human being might then seem like a mere collection of distinct things. Materialists, such as Hobbes, reduce the mind to the body, a view that might seem to mischaracterize thought as a kind of motion, ignoring the fundamental differences between these two kinds of activity. As I interpret Spinoza, he's suggesting an alternative to dualism and materialism that's designed to avoid their unappealing consequences. In particular, he's suggesting that the mind and body are unified in one of the strongest possible senses, in that they're identical, while also insisting that there is a fundamental difference between thought and motion, so fundamental that minds can't instantiate motion and bodies can't instantiate thought.

If I'm right, Spinoza's rejection of the Indiscernibility of Identicals isn't an *ad hoc* maneuver to avoid the unappealing consequences of dualism and

materialism. Instead, it reflects a systematic approach to identity, rooted in tradition. In the next section, I'll introduce that tradition.

Whether Spinoza's account is ultimately satisfying is a complicated matter that we can't settle here. But there are grounds for optimism. Spinoza's metaphysics has already broadened our philosophical imagination by forcing us to engage with views that at first seemed absurd but on closer examination proved credible. Panpsychism and substance monism are recent examples (see, e.g., Strawson 2006, Schaffer 2010). His view of the mind's relation to the body might prove to be another. In the conclusion, I'll explain why property dualists and neutral monists should pay especially close attention.

## 2. Identity across Times

Suppose that Peter went running in the morning and fell sound asleep at night. Let *Morning Peter* be the body that was running and *Night Peter* be the body that was sleeping. The following three claims seem mutually inconsistent:

2a. Morning Peter moved and did not rest, whereas Night Peter rested and did not move.
2b. Morning Peter and Night Peter are numerically identical.
2c. If *x* and *y* are numerically identical, *x* instantiates a property if and only if *y* instantiates that property.

Contemporary philosophers understand the Indiscernibility of Identicals so that it applies across times. In particular, they take it to entail: If *x* and *y* are numerically identical, and *x* instantiated a property (e.g. motion), then there is no time at which *y* instantiated a contrary property (e.g. rest).[1]

Which claims, if any, should we reject? Because contemporary philosophers regard the Indiscernibility of Identicals as an obvious truth, they reject either the discernibility or the identity of Morning Peter and Night Peter, that is, (2a) or (2b).[2] But there's another tradition, rooted in Aristotle, in which the Indiscernibility of Identicals has a different status. Philosophers in

[1] For surveys, see Haslanger (2003), Wasserman (2006), Kurtz (2006), and Sider (2007).
[2] As far as I'm aware, the only contemporary philosophers who reject the Indiscernibility of Identicals are Myro (1986), Baxter (1999), Hansson (2007), Rychter (2009), and Hofweber (2009).

that tradition would reject the Indiscernibility of Identicals when understood to apply across time. They might instead accept a principle that applies only at a time. I say a lot about that tradition in other papers (Morrison forthcoming, 2021, 2022). Here, I'll just summarize the conclusions most relevant to this chapter.

Aristotle writes in the *Categories*:

> It seems most distinctive of substance that what is numerically one and the same is able to receive contraries.…For example, an individual man—one and the same—becomes pale at one time and dark at another, and hot and cold, and bad and good.
>
> (Aristotle, *Categories*, Ch 5, 4a10–11 and 18–21; trans. Ackrill 1984a, p. 7)

Interpreting Aristotle is always tricky business. But one could interpret him as saying that a man, such as Peter, is numerically identical over time, despite instantiating different properties at different times. In virtue of what is it the same man, rather than a numerically distinct man at each time? Aristotle doesn't say in the *Categories*. But in the *Metaphysics* one could interpret him as saying that forms are individual, so that a man *x* and a man *y* are numerically identical if and only if they have the same form (see Irwin 1988, Ch 12; Frede and Patzig 1988, Ch 8). What is a man's form? Aristotle doesn't say much in the *Metaphysics*. But in *De Anima* one could interpret him as saying that it's a man's rational soul (*De Anima*, Bk 2, 412a18–26, 414a29–415a12; see also *Metaphysics* Zeta, Ch 10, 1035b14–18). Combining these interpretations, one could interpret Aristotle as committed to the view that a man is identical over time, despite instantiating different properties at different times, in virtue of his rational soul. In that case, Aristotle would reject the Indiscernibility of Identicals as understood by contemporary philosophers.

This also seems to be the view of many medieval Aristotelians, including Aquinas:

> [T]he human body, over one's lifetime, does not always have the same parts materially.…Materially, the parts come and go, and this does not prevent a human being from being numerically one from the beginning of his life until the end [as long as his rational soul is the same].
>
> (Aquinas, *Summa Contra Gentiles*, Book IV, Question 81, Line 4157; trans. Pasnau 2011, p. 691)

Aquinas seems to be saying that a man, such as Peter, is numerically identical over time, despite material changes, such as a loss of nutrients, and the corresponding change in his size and color. Moreover, in *De Principiis Naturae* he seems to say that material change occurs when a body loses one of its properties and gains a contrary property (Sect. 6–7; Normore 2009, pp. 681, 684). In that case, Aquinas would reject the Indiscernibility of Identicals when it is understood to apply across times (see Stump 2003, pp. 44–46).

For Aquinas, what is the essence of Peter? It's the combination of Peter's rational soul and his matter. According to Aquinas, this essence is sufficient for Peter's numerical identity over time (*De Ente et Essentia*, Ch 2).

Descartes seems to have a similar view about the identity of a person's body over time. In a 1645 letter to Mesland, he seems to say that a person's body remains numerically the same over time, despite material changes, as long as it is substantially united to the same soul.

> [W]hen we speak of the body of a man, we do not mean a determinate part of matter, or one that has a determinate size; we mean simply the whole of the matter which is united with the soul of that man. And so, even though that matter changes, and its quantity increases or decreases, we still believe that it is the same body, numerically the same body, so long as it remains joined and substantially united with the same soul.
>
> (Descartes AT IV 166; trans. Cottingham et al. 1984, 3:243)

In *Principles of Philosophy*, he says that properties are just modes, or ways in which a thing exists (AT VIIIA 26, 31). Material change occurs when a body exists in a new way. It seems to follow that material change occurs when a body loses one of its properties and gains a contrary property. In that case, Descartes would reject the Indiscernibility of Identicals when it is understood to apply across times.

For Descartes, what is the essence of Morning Peter and Night Peter? As with all other bodies, it's extension (AT VIIIA 25, VII 31). Because this essence isn't unique to Morning Peter and Night Peter, it isn't sufficient for numerical identity. According to Descartes, something else is sufficient for Morning Peter's and Night Peter's numerical identity: their inessential connection to Peter's mind.

In other papers, I provide additional support for these interpretations of Aquinas and Descartes (Morrison 2022, forthcoming). One of my arguments is that Aquinas and Descartes can't accept any of the contemporary

responses to the puzzle, such as relationism (Mellor 1998, Ch 8) and perdurantism (Lewis 1986, Ch 4).

Aquinas and Descartes might still think that identity requires indiscernibility *at a time*. In particular, they might still accept: If *x* and *y* are numerically identical, and *x* instantiated a property at a time, then *y* didn't instantiate a conflicting property at the same time. Unlike the Indiscernibility of Identicals as understood by contemporary philosophers, this principle allows Morning Peter and Night Peter to be numerically identical, even though Morning Peter instantiated motion and Night Peter instantiated rest, because Morning Peter and Night Peter didn't instantiate conflicting properties at the same time.

There's precedent for such a principle. Aristotle says that the most certain of all principles is that "the same attribute cannot *at the same time* belong and not belong to the same subject in the same respect" and that this implies that "it is impossible that contrary attributes should belong *at the same time* to the same subject" (*Metaphysics*, Bk 4, 1005b19–20 and 26–27, trans. Ross 1984b, p. 46, emphasis added). He thus links identity to indiscernibility at a time. Seventeenth-century authors make similar claims. For example, Mersenne says that the most certain of all principles is that "it is impossible for the same thing to be and not to be" and that this principle implies that the same thing cannot be green and not green, sweet and not sweet, and so on. He thus takes it to be a version of the Indiscernibility of Identicals, and he says that this principle should be understood as implicitly restricted to a time (*Truth of the Sciences*, Ch 5, trans. Ariew et al. 1998, p. 162).

I believe that Spinoza, like Aquinas and Descartes, would respond to the puzzle about identity over time by rejecting the Indiscernibility of Identicals if understood to apply across times. I defend this interpretation of Spinoza in another paper (Morrison 2021). Here I'll develop the details most relevant to understading his response to the puzzle of identity across attributes.

According to Spinoza, a person's body is numerically identical over time (e.g. 3P51&S, 5P39S). He says this is because a person's body retains the same pattern of motion. The most important passage is his definition of 'one body' in the so-called physical digression following 2P13:

> When a number of bodies, whether of the same or different size, are so contained by other bodies that they lie upon one another, or if they so move, whether with the same degree or different degrees of speed, that they communicate their motions to each other in a certain fixed pattern

> [*ratio*], we shall say that those bodies are united with one another and that they all together compose one body, or individual, which is distinguished from the others by this union of bodies.
>
> (2PhysD1; see also KV App. II Sect. 14)[3]

Spinoza infers from this that if a body's pattern of motion is disrupted, the body is destroyed (2PhysD1, 4P39S). He also infers that as long as that pattern is preserved, the body remains numerically the same, as when its parts merely grow in size (2PhysL5) or when there's merely a change in the direction or speed of its overall motion (2PhysL6, 2PhysL7). Thus, even though Morning Peter is running and Night Peter is resting, Spinoza would presumably say that they're identical, because they share the same pattern of motion. In that case, Spinoza would reject the Indiscernibility of Identicals when understood to apply across times.

For Spinoza, what is the essence of Morning Peter and Night Peter? Unlike Aquinas, he doesn't think that it involves a substantial form, because he regards substantial forms as unacceptably mysterious (Ep 60). Unlike Descartes, he doesn't think that it's extension, because all bodies are extended (2D1), and a thing's essence is supposed to be unique, in that it includes whatever is necessary and sufficient for its existence (2D2; more on this later).

In Section 3 I argue that the essence of Morning Peter and Night Peter is a pattern of activity that isn't specific to motion, and thus can be shared by his mind as well. If I'm right, Peter's identity across both times and attributes is due to his pattern of activity. Spinoza thus has a unified account of the numerical identity of Morning Peter and Night Peter, and of Peter's body and Peter's mind. As preparation for that argument, let's reconstruct his view of patterns of motion, because I'll later use it as a guide to his view of patterns of activity.

What pattern of motion do Morning Peter and Night Peter share? The relevant pattern can't include the motions of their parts, because their parts were moving in different ways. For example, Morning Peter's heart was beating quickly whereas Night Peter's heart was beating slowly. But it can include the dispositions of those parts to move in certain ways under certain circumstances, because that is something they might share. For example, it can specify the disposition of the heart to beat rapidly when running and slowly

[3] Curley translates *ratio* using 'manner' in Spinoza (1985). But Garrett (1994, pp. 86–87) persuasively argues that 'pattern' better conveys what Spinoza has in mind.

when resting, because these dispositions are common to Morning Peter and Night Peter. Building on this point, I think there's a helpful comparison between patterns of motion and computer programs: A computer program specifies how a computer in a certain state will respond to a given input ('2+2'), by specifying what the computer will output ('4'), what internal processes will generate that output (e.g. the computations in its central processing unit), and any internal changes (e.g. any new information stored in memory). Given the nature of computer programs, the same program can respond differently to different inputs (e.g. '4' to '2+2' and '5' to '2+3'), and to different instances of the same input (e.g. '4' to '2+x' when the value of x is internally set to 2, and later '5' when x is internally set to 3). Likewise, a pattern of motion specifies how a body in a certain state will respond to an interaction by specifying how it will behave, what internal processes will generate that behavior, and any internal changes. Given the nature of these patterns, a body with the same pattern of motion can respond differently to different stimuli, and also to different instances of the same input. In response to the firing of a starting pistol, Peter's well-rested body will rapidly move forward, because his heart will beat quickly, his lungs will suction air rapidly, and his leg muscles will expand and contract forcefully, and these internal processes will consume oxygen, water, and glucose, until he's no longer well-rested. When he's no longer well-rested, he might respond differently to the firing of the same pistol; he might not move as rapidly, for example. His pattern of motion might specify the responses of his heart, lungs, and leg muscles both when he's well-rested and when he's tired.

This wouldn't make Peter's pattern of motion a mere collection of unrelated dispositions. The same internal processes might be responsible for many of his responses, thereby unifying them. Consider a computer program for addition. It might encode each input as a string of 1s, so that it encodes 2 as 11 and 3 as 111. It might then mechanically combine these strings into a longer string, in this example 11111, which would equal 5. Such a program wouldn't be a mere collection of unrelated dispositions, for example to output '4' when '2+2' in inputted, and '5' when '2+3' is inputted. The same process would be responsible for all of its responses. Similarly, the same processes might be responsible for Peter's behavior. The relevant processes might include respiration, oxidation, circulation, perspiration, depletion, and regeneration. Unlike our program for addition, but like other computer programs, these processes might alter themselves and each other over time. Together, all these processes would specify how Peter's body would respond to each combination of stimuli, and what effect those stimuli

and responses would have on his internal state. They might even specify how his body would respond under counterfactual conditions, such as if the pistol were a little louder, even if those counterfactuals are metaphysically impossible, given Spinoza's necessitarianism (1P33). Likewise, a computer program might specify how it would respond to inputs that are technologically impossible, perhaps because the computer doesn't have a large enough memory, or impracticable, because the keyboard is broken.

Another similarity with computer programs is that a body's responses can depend on arbitrarily many inputs. Peter's exact response to the starting pistol might depend on thousands of independent facts about his environment, including the direction of the wind, the intensity of the sun, and the postures of his competitors. These responses can also depend on arbitrarily many internal states. Peter's response might also depend on what's happening in millions of different parts of his body, including thousands of different parts of his brain. Because Peter is rarely in exactly the same environment, and because the parts of his body are constantly changing, he might never respond in exactly the same way twice.

Peter's pattern of motion might be specific enough to distinguish his body from all other bodies. From a contemporary perspective, this seems plausible. Consider the dispositions encoded in Peter's DNA. They specify the highly distinctive ways in which Peter's body responds to his environment, including how it grows. Because of these dispositions, no matter how similar we make Peter's environment to Paul's environment, Peter and Paul won't grow in exactly the same way. They'll end up with different heights, complexions, running speeds, immune responses, and synaptic connections, for example. Because Peter's dispositions are encoded in his DNA, they are constant throughout his lifetime, even though different dispositions manifest at different times, such as at birth, puberty, and middle age. Unlike us, I doubt that Spinoza had a well-developed view about which dispositions are responsible for the differences in how people grow. But it might have been obvious to him that there are such dispositions, given the obvious differences in people's heights, complexions, etc., even when they grow up in equivalent environments.

For patterns of motion to be that specific, they needn't include *all* of a body's dispositions. They might just include those dispositions that contribute to a body's persistence and growth. For example, Peter's pattern of motion might include the dispositions that enable Peter to pick fruits, avoid snakes, and fight diseases, but not the disposition to dissolve in a vat

of acid. I'll return to this issue later, when discussing Spinoza's conatus doctrine (3P7).

There's an interesting parallel with Leibniz's view in the *Monadology*. According to Leibniz, monads are distinguished by their unique internal principle, and each principle gives rise to a unique series of states (Sect. 11, 57). In both respects, Leibniz's internal principles are like Spinoza's patterns of motion. One difference is that whereas Leibniz says that each state is caused internally (Sect. 11), Spinoza says that each state depends on causal interactions with the environment. Another difference is that whereas Leibniz denies that the cause of this series can be understood mechanistically (Sect. 17), Spinoza insists that it must be. We might thus think of Leibniz's internal principles as computer programs that don't accept external inputs and aren't physically implemented (for thoughts along these lines, see Rutherford 1995, pp. 151–154; Cover and O'Leary-Hawthorne 1999, pp, 226–229).

In Section 3, I'll argue that the essence of Morning Peter and Night Peter is a pattern of activity that isn't specific to motion, and thus can be shared by a mind as well.

## 3. Identity across Attributes

According to Spinoza, there are infinitely many attributes (1P11). However, we're aware of only two of them: extension and thought (2A5). Our puzzle is about the identity of things belonging to these two attributes. In particular, it's about the identity of Peter's mind and Peter's body. Here again is the puzzle:

1a. Peter's body moves and does not think, whereas Peter's mind thinks and does not move.
1b. Peter's body and Peter's mind are numerically identical.
1c. If *x* and *y* are numerically identical, *x* instantiates a property if and only if *y* instantiates that property.

I believe that Spinoza would respond to this puzzle in the same way he'd respond to the puzzle of identity over time. More exactly, I believe he would insist that Peter's body and Peter's mind are numerically identical, despite discernible differences, because they share the same essence. Thus, he'd reject the Indiscernibility of Identicals.

To help motivate this interpretation, I'll first consider the textual and systematic evidence that he's committed to both the discernibility and the identity of Peter's body and Peter's mind, that is, (1a) and (1b). While none of the evidence I'll consider is decisive, it still motivates the search for an interpretation that accommodates both commitments. I'll then consider the textual and systematic evidence that Spinoza would regard (1a)–(1c) as mutually inconsistent.

## 3.1 Commitment to 1a

Let's begin with his commitment to their discernibility. Spinoza describes bodies as moving and minds as thinking (e.g. 2PhysA1′, 2D3). He also denies that bodies and minds have comparable powers. He writes, "And, of course, since there is no common measure between the will and motion, there is also no comparison between the power, or forces, of the mind and those of the body" (5Pref). If Peter's body could think or Peter's mind could move, we could compare their powers. Thus, Peter's body cannot think and Peter's mind cannot move. Another difference is in their causes: only bodies produce changes in Peter's body, and only minds produce changes in Peter's mind (2P9, 2PhysL3). There's a corresponding difference in their effects: Peter's body produces changes only in bodies, whereas Peter's mind produces changes only in minds (3P2). These differences in their motions, thoughts, causes, and effects ground further differences. For example, because only Peter's body moves, only Peter's body has a shape, speed, weight, and spatial location, and thus only Peter's body trembles, sobs, and laughs (3P59S). Likewise, because only Peter's mind thinks, only Peter's mind represents and is conscious, and thus only Peter's mind perceives, believes, and feels (e.g. 5P39S, 3P2S[i]).

There's a related, systematic reason why Spinoza is committed to the discernibility of Peter's body and Peter's mind. Motion is an activity that falls exclusively under the attribute of extension. Thus, if Peter's mind could move, we could conceive of it under the attribute of extension. But Spinoza insists that we can conceive of minds only under the attribute of thought (2P5D). For this reason, he must deny that Peter's mind can move. For a parallel reason, he must deny that Peter's body can think. The conceptual independence of thought and extension isn't a tangential commitment. It's supposed to follow from the core of Spinoza's metaphysics, namely his

accounts of substance and attribute (see his demonstration of 1P10, and his subsequent use of it in 2P5D and 2P6D).

It might be tempting to interpret all these passages so that they are just about *the concepts* we use to understand minds and bodies. According to this interpretation, Peter's mind can move, Peter's body can think, and minds and bodies can causally interact, but our concepts of Peter's body and Peter's mind do not allow us to understand their activities and interactions when they are described in these ways. Consider, for example, Spinoza's claim that "the body cannot determine the mind to thinking, and the mind cannot determine the body to motion" (3P2). According to this interpretation, Spinoza's claim is merely that we can't understand how the mind and body interact when they're described as such.[4]

But this interpretation is hard to accept. First, as a proposition, 3P2 is Spinoza's official statement of his view, and it doesn't mention our concepts of mind or body, or what we can use those concepts to understand. It seems to be about minds, bodies, and their interactions, not about our concepts. Second, Spinoza would have formulated this proposition in the most confusing way possible. In particular, he would have written that "the body cannot determine the mind to thinking" even though he believes that the body determines the mind to thinking. Third, we would need to interpret the causal axiom (1A4) so that it doesn't impose a restriction on which things can causally interact, because otherwise it would preclude minds and bodies from causally interacting (see 3P2D). But if the causal axiom doesn't impose a restriction on which things can causally interact, it's unclear how it could establish that substances can't causally interact with each other (1P3D, 1P6D2), a key premise in Spinoza's argument for substance monism (1P15).

There's room for further debate. But I hope this is enough to motivate the search for an interpretation that accommodates Spinoza's commitment to the discernibility of Peter's body and Peter's mind.

[4] Koistinen (1996, p. 33) and Davidson (1999, pp. 306–307) claim that for Spinoza bodies and minds can causally interact, at least in our sense. Odegard (1971, p. 587) is hard to classify, but seems to think that mind and body differ only in how we describe them, which at least suggests that motion is mind-dependent. Curley (1988, pp. xiv, 68–69, 74–78) and Hampshire (1969 esp. pp. 19–22) more explicitly think that mind and body differ only in how we describe them, and think this supports interpreting Spinoza as a kind of materialist. Given what Shein (2009, pp. 529–531) says about the attributes, she presumably thinks that mind and body differ only in how we think about them. Lin (2019, pp. 87–90) says that the mind and the body differ only in how they're conceived.

### 3.2. Commitment to 1b

Let's next consider Spinoza's commitment to the identity of Peter's body and Peter's mind. Spinoza repeatedly says that the body and mind are "one and the same thing" [*una eademque est res*]. This was, and still is, a standard expression for numerical identity. For example, it is the standard expression for numerical identity in Latin translations of Aristotle's *Categories* and *Metaphysics*. Consider the passage from Aristotle's *Categories* quoted earlier, with, in brackets, the Latin translation from the edition that was probably in Spinoza's library (the 1538 Basil edition):[5]

> It seems most distinctive of substance that what is numerically one and the same [*idem et unum numero*] is able to receive contraries.…For example, an individual man—one and the same [*unus et idem*]—becomes pale at one time and dark at another, and hot and cold, and bad and good.
>
> (Aristotle, *Categories*, Ch 5, 4a10–11 and 18–21; trans. Ackrill 1984a, p. 7)

Consider also a passage from Aristotle's *Metaphysics*, with the Latin translation from the same edition in brackets:[6]

> Those things are the same [*eadum*] whose substance is one [*una*]; those are like whose quality is one; those are equal whose quantity is one….
>
> (Aristotle, *Metaphysics*, Delta, Ch 15, 1021a9–12; trans. Ross 1984b, p. 75)

It shouldn't be surprising that 'one and the same' means numerical identity, because it's indicated by the expression itself, with 'same' [*eadem*] indicating

[5] The inventory of the books in Spinoza's library lists only "Aristoteles 1548. Vol. 2" (Freudenthal 1899). Based on the publication year and number of volumes, Freudenthal hypothesizes that it was the 1538 edition (p. 276). Thanks to Manzini (2001), we now have more convincing evidence. In *Metaphysical Thoughts* Spinoza quotes from Aristotle's *Metaphysics*, but mistakenly attributes the passage to Book 11, rather than Book 12 (see CM II, Ch 6). This is probably due to a mistake in the 1538 Basil edition, in particular a mistake in the header above the relevant passage, because it says Book 11, rather than Book 12.

[6] Some scholars might think that Aristotle is talking about universal substances rather than particular substances (for an overview, see Gill 2005, pp. 229–233). These scholars might deny that Aristotle is talking about numerical identity. However, late medieval Aristotelians, presumably including the late medieval translators of Aristotle, wouldn't think that Aristotle is talking about universal substances. They interpret Aristotle as rejecting universal substances in favor of nominalism.

it's about identity, 'one' [*una*] indicating it's about numerical identity, and a term like 'thing' [*res*] or 'substance' [*substantia*] indicating it's about an individual rather than a kind, time, or act. Given that 'one and the same' was a standard expression for numerical identity,[7] when Spinoza says that the body and mind are one and the same thing, he seems straightforwardly committed to their numerical identity. In fact, he could hardly have made that commitment any clearer.

In further support of this interpretation, consider that this is how Descartes uses 'one and the same' when discussing the mind's relation to the body. He writes in the *Second Replies*:

> Whether what we call mind and body are one and the same [*una & eadem*] substance, or two different substances, is a question which will have to be dealt with later on.
>
> (AT VII 162; trans. Cottingham et al. 1984, p. 2:114)

Likewise, he writes in the *Third Replies*:

> Once we have formed two distinct concepts of these two substances, it is easy, on the basis of what is said in the *Sixth Meditation*, to establish whether they are one and the same [*una & eadem*] or different.
>
> (AT VII 176; trans. Cottingham et al. 1984, p. 2:124)

Finally, when discussing our concepts of mind and body in the *Sixth Replies*, he writes:

> For it is a conceptual contradiction to suppose that two things which we clearly and distinctly perceive as different should become one and the

[7] Here are some passages, chosen nearly at random: Buridan restates the above claim from Aristotle, "it seems to be most proper to substance that while it remains numerically one and the same, it is susceptible of contraries by its own change" (*Summulae de Dialectica*, Treatise 3, Ch 2, Sect 9; trans. Klima 2001, p. 162). Buridan restates the first axiom of Euclid's *Elements*—"whatever things are said to be numerically identical with one and the same thing, are said to be identical between themselves"—and says that it underlies all affirmative syllogisms (*Summulae de Dialectica*, Treatise 5, Ch 1, Sect 6; trans. Klima 2001, p. 313). Ockham says that "one and the same thing" cannot be similar and dissimilar to the same thing in the same respect (*Summa totius logicae*, Bk 1, Ch 13; trans. Boehner 1964, p. 65). While discussing Aristotle's *Metaphysics*, Bk 5, Ch 15, 1021a9–12, Duns Scotus says, "[T]he unity required in the foundation of the relation of similarity is a real one. But it is not numerical unity, since nothing one and the same is similar or equal to itself" (*Ordinatio*, Distinction 3, Part 1, Questions 1, 4, and 6; trans. Spade 2010, p. 583).

> same thing [*unum & idem*] (that is intrinsically one and the same, as opposed to by combination).
>
> (AT VII 444–445; trans. Cottingham et al. 1984, p. 2:299)

Spinoza was, of course, thoroughly familiar with Descartes's work. It's therefore hard to believe that Spinoza would use 'one and the same' in another way when discussing the mind's relation to the body, without clearly indicating what he means. Otherwise, his claim would give the false impression that he disagreed with Descartes, even though they agreed that the mind and body are numerically distinct.[8] Just as importantly, Spinoza elsewhere always uses variations of 'one and the same' to mean numerical identity (e.g. 2PhysL2D, 2PhysA1″, 2P49C, 3P51), even when discussing a relation between kinds (e.g. 4P59D2, 5P4S). If he were using 'one and the same' differently in this context, we'd expect him to clearly indicate that shift, especially if he were no longer using 'one and the same thing' in the standard way.

Nonetheless, Bennett, Marshall, Aquila, and Koistinen claim he means something else. According to Bennett, he means they share a part, in particular the same trans-attribute mode (1981, pp. 577–579; 1984, pp. 141–149; 1994, pp. 17–18). According to Marshall, he means they form a whole (2009, p. 913). According to Aquila, he means the body is a constituent of the mind (1978, p. 283). According to Koistinen, he means that the mind represents the body directly, without any intermediaries (2017, pp. 287–288). But how could Spinoza reasonably expect his readers to know that's what he means? Marshall suggests that when Spinoza says "a mode of extension and the idea of that mode are one and the same thing, but expressed in two ways," the clause 'expressed in two ways' is supposed to indicate that the mind and body are parts of the same whole in virtue of having parallel causal roles. But, as far as I can tell, there's no historical precedent for such a convention. More generally, there's no way Spinoza could

[8] In the passage from the *Sixth Replies*, Descartes distinguishes between the claim that mind and body are one and the same *intrinsically* and the claim that they are one and the same *through combination* (AT VII 444–445; see also AT VII 423–424). In personal correspondence, Marshall suggests that Spinoza might have had in mind this combinatorial sense of 'one and the same', and thus could be interpreted as saying that the mind and body combine to form a whole. But I'm not convinced. Whenever Descartes uses 'one and the same' without qualification, it's clear from the context that he means it in the first, intrinsic sense. In fact, Descartes never uses 'one and the same' in the second, combinatorial sense. Descartes distinguishes these two senses only to make clear that he's using it in the first, intrinsic sense. It is hard to believe that Spinoza would use 'one and the same' in the combinatorial sense without indication, in part because it would be unreasonable of him to assume that his readers would know he's using 'one and the same' in a *secondary* sense that Descartes merely *mentions* in one of his replies.

reasonably expect his readers to know that's what he means. Likewise for Bennett's, Aquila's, and Koistinen's proposals.[9]

There's also a systematic consideration. A well-known problem with claiming that Peter's body and Peter's mind are numerically distinct is that it's then unclear in what sense they're united into a single human being. Medieval Aristotelians, including Aquinas, respond that Peter's body and Peter's mind are unified into a single human being because Peter's mind is a substantial form of Peter's body. In some passages, Descartes *seems* to respond that Peter's body and Peter's mind are unified into a single human being in part because of their causal interactions (AT XI 351; AT VII 88). In other passages, Descartes *seems* to respond that we can't clearly and distinctly understand their union, because we cognize their union only through sensation (AT III 691–692). Spinoza can't respond in any of these ways. He can't respond that Peter's mind is a substantial form of Peter's body because he rejects substantial forms (Ep 60; CM II, Ch 6). He can't respond that Peter's body and Peter's mind are unified in virtue of their causal interactions because he denies that Peter's body and Peter's mind causally interact (3P2). And, unlike Descartes, he insists that we can clearly and distinctly understand their union (see 2P13S, 5Pref, TIE 21–22). Moreover, like these other philosophers, he presumably wouldn't respond that Peter's body and Peter's mind are unified merely in that they're parts of the same whole (a "mere aggregate"), because that was the unacceptable conclusion that all of these philosophers were explicitly trying to avoid.[10] Like these other philosophers, Spinoza also presumably wouldn't respond that Peter's body and Peter's mind are unified merely in that Peter's mind represents Peter's body,

[9] According to Hübner, 'one and the same' means numerical identity, but Spinoza is not saying that the body and mind are numerically identical to each other. Instead, he's saying that they are modes of one and the same substance (Hübner 2015b, pp. 168–169). Someone sympathetic with Bennett's or Marshall's proposals might similarly interpret Spinoza as saying that the body and mind share one and the same trans-attribute mode, or that they are parts of one and the same whole. The obvious problem with all these proposals is that there's no evidence that Spinoza is speaking elliptically when he repeatedly says that the body and mind are "one and the same thing." There are also problems specific to each proposal. For example, Hübner's proposal implies that all modes are "one and the same thing," because all modes are modes of the same substance (by 1P15), but Spinoza later says that he's established that the mind and body are unified in a special sense (2P21S).

[10] For general discussion, see Pasnau (2011, Ch 15, esp. pp. 588–589). For specific examples, see Aquinas, *Summa Theologica*, Volume 1a, Question 76; Burgersdijk, *Collegium Physicum, disputationibus XXXII absolutum*, Disp 20, Par 10; Ockham *Quodlibeta Septem*, Book 2, Question 11; Buridan, *Quaestiones de anima*, Book 3, Question 4; Descartes, AT VII 81, 227–228; Arnauld, AT VII, 203.

because Peter's mind also represents bodies that are faraway (e.g. stars) and strive for his destruction (e.g. his crucifiers). Even if there is a way to exclude these other bodies, representation still doesn't seem like enough to unite Peter's body and Peter's mind into an aggregate, let alone into a single human being. It's not the right kind of relation.

How else could Spinoza explain the union of Peter's body and Peter's mind into a single human being? As long as Peter's body and Peter's mind are distinct, it's unclear. But if they're numerically identical, it's trivial. This might help explain why Spinoza insists they're "one and the same thing."

Once again, there's room for further debate. But I hope this is enough to motivate the search for an interpretation that accommodates Spinoza's commitment to the identity of Peter's body and Peter's mind.

## 3.3. Inconsistency of 1a–1c

Let's next consider the inconsistency of the Indiscernibility of Identicals with the identity and discernibility of Peter's body and Peter's mind. As far as I can tell, there's only one way to deny that these claims are really inconsistent: argue that the discernible differences between Peter's body and Peter's mind are mind-dependent, and therefore fall outside the scope of the Indiscernibility of Identicals. For concreteness, I'm going to focus on Della Rocca's way of developing this proposal, because I think it's the best.[11] I'll later explain why other ways of developing the proposal are no less problematic.

Let's start with an example. Suppose:

Mary believes that Simon fishes.
Mary does not believe that Peter fishes.

One might think it follows that:

Simon has the property *is believed by Mary to fish*.
Peter does not have the property *is believed by Mary to fish*

[11] Jarrett (1991, p. 470) suggests a similar proposal, but he focuses exclusively on the causal roles of Peter's body and Peter's mind, and also doesn't say why we're unable to substitute co-referring terms in causal attributions.

Nonetheless, Peter and Simon are numerically identical, because 'Simon' and 'Peter' are just different names for the same person. Della Rocca concludes that properties like *is believed by Mary to fish* fall outside the scope of the Indiscernibility of Identicals. Della Rocca thinks that examples like this establish a general principle: if whether an object instantiates a property depends on how someone is thinking about that object, that property falls outside the scope of the Indiscernibility of Identicals. He then suggests that for Spinoza, whether objects instantiate *is moving* or *is thinking* depends on someone's thinking about them as bodies or minds, and thus *is moving* and *is thinking* fall outside the scope of the Indiscernibility of Identicals. In that case, (1a)–(1c) are mutually consistent. In particular, (1a) is about properties that fall outside the scope of the Indiscernibility of Identicals, that is, (1c).

The problem with this interpretation is that it commits Spinoza to a kind of idealism. To see why, consider how Spinoza distinguishes bodies from one another:

> Bodies are distinguished from one another by reason of motion and rest, speed and slowness, and not by reason of substance. I suppose that the first part of this is known through itself…. (2PhysL1)

For example, whether smaller bodies compose a larger body depends on their motions (see again 2PhysD1). Thus, if Della Rocca is right, whether the larger body exists depends on whether someone is conceiving of the smaller bodies as bodies, and thus depends on what a mind is thinking. Similarly, if Della Rocca is right, the existence of the smaller bodies would also depend on what a mind is thinking, because Spinoza says that even the smallest bodies are distinguished by their motions (see 2PhysA2′). As a result, the existence of all bodies would depend on what a mind is thinking. Even if their existence merely depended on how *God* is thinking about them, that would still make the existence of bodies dependent on thought.

This result extends beyond Della Rocca, to any attempt to reconcile the identity and discernibility of Peter's body and Peter's mind with the Indiscernibility of Identicals. If the differences between Peter's body and Peter's mind fall outside the scope of the Indiscernibility of Identicals, one is pushed to conclude that motion is mind-dependent, because only mind-dependent properties seem to fall outside the scope of the Indiscernibility

of Identicals. And if motion is mind-dependent, then the existence of bodies depends on thought.[12]

Della Rocca acknowledges that his interpretation commits Spinoza to this result, and that this is a kind of idealism (2012a, p. 13). Unlike us, he focuses on the Principle of Sufficient Reason, rather than the role of motion in distinguishing bodies. For our purposes, either path is fine.[13]

Like others, I'm convinced that this kind of idealism is incompatible with Spinoza's claim that "each attribute of a substance must be conceived through itself" (1P10). Like others, I think that this claim is supposed to establish that what's happening in one attribute does not depend on what's happening in another attribute. In that case, it establishes that the existence of bodies does not causally depend on what's happening in the attribute of thought (2P5, 2P6, and then 3P2), and also that the existence of bodies does not depend on what's happening in the attribute of thought in the stronger sense in which the existence of bodies would depend on how a mind is thinking about them (see Melamed 2013, pp. 195–197, and Newlands 2012, pp. 40–42, 46–49; for more on idealist readings of Spinoza, see Melamed 2010 and Newlands 2011a, 2011b).

There's yet again room for further debate (and see Della Rocca 2012a, pp. 13–14, for his responses). But I hope this is enough to motivate the search for an interpretation that doesn't commit Spinoza to a kind of idealism.

## 3.4. Commitment to 1c

We identified textual evidence and systematic considerations that seem to commit Spinoza to the identity and discernibility of Peter's body and Peter's mind, that is, (1a) and (1b). We also identified systematic considerations

[12] As an alternative, Newlands suggests that while the differences between the body and mind are merely conceptual, they are not mind-dependent (2010, p. 76; 2012, p. 46; 2018, pp. 248–249). According to Newlands, conceptual differences are less psychological, and more metaphysical, than is often supposed. But, if conceptual differences aren't mind-dependent, why would they fall outside the scope of the Indiscernibility of Identicals? I can't think of a reason. As a result, I think that Newlands should deny that Spinoza is committed to the Indiscernibility of Identicals.

[13] Della Rocca says that the Principle of Sufficient Reason commits Spinoza to identifying existence with intelligibility (2012a, pp. 9–11; see also 2003, p. 85; 2008, p. 36; 2012b, pp. 159–161). For criticism, see Garber (2015, pp. 511–513). An advantage of our argument is that it doesn't rely on a controversial interpretation of Spinoza's commitment to the Principle of Sufficient Reason.

that seem to show that if Spinoza were also committed to the Indiscernibility of Identicals, that is, (1c), he'd be committed to a kind of idealism that seems incompatible with his basic commitments. In contrast, Spinoza never explicitly accepts the Indiscernibility of Identicals, and, as far as I can tell, none of his claims entail it. There also don't seem to be any relevant systematic considerations, and none of his arguments seem to presuppose the Indiscernibility of Identicals rather than a weaker principle restricted to times and attributes (more on this in Section 7). Thus, if we want to accommodate the textual evidence and systematic considerations that seem to commit Spinoza to the identity and discernibility of Peter's body and Peter's mind, and we don't want to commit him to a kind of idealism, or to a straightforward contradiction,[14] we should conclude that Spinoza would reject the Indiscernibility of Identicals.[15]

## 4. Essences

So far, I have argued that Spinoza is committed to the identity and discernibility of Peter's body and Peter's mind, and thus would reject the Indiscernibility of Identicals. But there's more to our interpretation. According to our interpretation, Peter's body and Peter's mind are identical, despite discernible differences, because they share the same essence, namely the same pattern of activity. What motivates these further claims?

Let's start with the claim that Peter's body and Peter's mind share the same essence. There are four related motivations for this claim. First, Spinoza's response would then be continuous with a traditional view of identity over time. In particular, it would be continuous with the view that $x$ and $y$ are identical over time, despite discernible differences, if and only if they share the same essence. Spinoza's innovation would be to extend this

[14] According to Delahunty (1985, p. 191), Spinoza's view is inconsistent. Like Delahunty, I think this should be our last resort. Unlike Delahunty, I think there are plausible alternatives.

[15] This interpretation isn't completely without precedent. In an offhand remark, and without elaborating, Daniels (1976, p. 555) says that 3P2, 2P6, and 2P7S jointly imply that Spinoza would reject the Indiscernibility of Identicals. Garrett (2017) independently suggests that Spinoza would reject a version of the Indiscernibility of Identicals, though Garrett's approach is very different. Hübner (forthcoming, fn 41) argues that Spinoza would reject the Indiscernibility of Identicals because it is incompatible with his theory of representation. In the French tradition, scholars often seem to take it for granted that the body and mind are simultaneously different and identical, and they don't seem to regard this as paradoxical. This suggests that they take for granted that Spinoza would reject the Indiscernibility of Identicals (see, e.g., Deleuze 1968, Ch 7; Jaquet 2004, Ch 1).

view to identity across attributes. His response would thus make sense from a historical perspective.

Second, Spinoza's response would be systematic. In particular, his response to the puzzle of identity across attributes would parallel his response to the puzzle of identity across time. In both cases, Peter is numerically identical, despite instantiating different properties, because of his essence. In other work (Morrison 2017), I argue that Spinoza would give parallel responses to two other puzzles, a puzzle about identity across levels within the attribute of thought (e.g. the identity of Peter's mind and the idea of it) and a puzzle about identity across columns within the attribute of thought (e.g. the identity of Peter's mind and the idea of a mode of an unknown attribute). And this is exactly what we'd expect from such a careful and systematic philosopher.

Third, if there are discernible differences between Peter's body and Peter's mind, and yet they're identical, it's natural to look for the feature in virtue of which they're identical. That is, it's natural to look for the metaphysical glue binding them together. This is because there's at least a *prima facie* tension between saying that Peter's body and Peter's mind are discernible and saying that they're identical, and identifying the relevant feature would help ease that tension. Without such a feature, their identity would seem arbitrary, because there wouldn't be a reason why they're identical while other discernible things aren't. Their identity might also be unknowable, because we'd have no way of knowing which discernible things are identical. To better appreciate the need for a unifying feature, it might help to consider an analogous view about identity across times. If someone claimed that there are genuine differences between Morning Peter and Night Peter, and not merely differences in how we conceive of them, we'd expect an explanation, and it would be natural for such an explanation to appeal to a common feature. It would be unsatisfying to be told that there is no such explanation, in part because identity over time would then seem arbitrary and potentially unknowable. Let's therefore suppose that there is a feature in virtue of which Peter's body and Peter's mind are identical, and that we correctly identify it. The immediate question would be: Why is sharing *this* feature sufficient for identity? After all, there are other features that Morning Peter and Night Peter don't share, including motion and thought, and we'd like to know why sharing the relevant feature is still sufficient for identity. From both a contemporary and a historical perspective, I think that the best answer is that this feature is their shared essence, because the traditional role of a thing's essence is to indicate what's necessary and sufficient for that thing's

existence. This is also the role that Spinoza assigns to essences, because he says that a thing's essence includes whatever is necessary and sufficient for its existence (2D2; more on this later).

Fourth, this claim is suggested by what Spinoza says about his conatus doctrine (3P6). According to the conatus doctrine, the essence of Peter's body includes many of the activities that contribute towards his persistence and growth, including the activities that help him pick fruits, avoid snakes, and fight diseases. In Spinoza's terminology, the essence of Peter's body includes the activities that together are Peter's body's striving to persevere. Strikingly, Spinoza says that this striving relates to *both* to Peter's body and Peter's mind:

> When this striving [to persevere] is related only to the Mind, it is called Will; but when it is related to the Mind and Body together, it is called Appetite. The Appetite, therefore, is nothing but the very essence of a man… (3P9S)

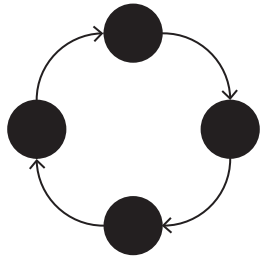
This at least *suggests* that Peter's body and Peter's mind share the same essence.

What essence do they share? I suggest that it is a pattern of activity that doesn't specify moving, thinking, or any other kind of activity. According to this suggestion, Peter's body and Peter's mind are discernible, in that Peter's body moves but does not think, while Peter's mind thinks but does not move, but they are nonetheless numerically identical because they share the same essence, namely the same pattern of activity. It would then be sufficient for Peter's body to have the same pattern of motion over time, and it would likewise be sufficient for Peter's mind to have the same pattern of thinking, not because these are the respective essences of Peter's body and Peter's mind, but because having the same pattern of motion or the same pattern of thinking entails having the same pattern of activity, and thus the same essence.

In support of this alternative, consider that this seems to be the *only* feature that Peter's body and Peter's mind share with each other and that they do not share with other bodies and minds. Thus, this seems to be the only feature that *could* explain their identity. For example, while they are both modes of God, so are all other bodies and minds, and thus this feature doesn't explain the identity of Peter's body and Peter's mind.

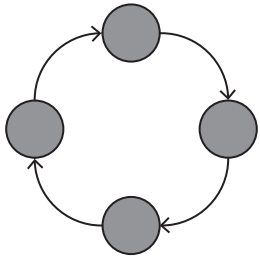
What are patterns of activity? Recall what we said earlier about patterns of motion, building on a comparison with computer programs: A pattern of *motion* specifies how a body in a given state will respond to an interaction by specifying its behavior, what internal processes will generate that behavior, and any internal changes that might impact future responses. Because it's a pattern of motion, all of this activity will exclusively involve bodies and their motions. Similarly, a pattern of *thinking* specifies how a mind in a given state will respond to an interaction with another mind by specifying its behavior, what internal processes will generate that behavior, and any internal changes that might impact future responses. Because it's a pattern of thinking, all of this activity will exclusively involve ideas and their thoughts. For example, instead of specifying that Peter's heart will beat quickly, it specifies that a corresponding idea in Peter's mind (specifically: the idea of Peter's heart) will think about Peter's heart as beating quickly. I'm suggesting that the essence of Peter's body and Peter's mind isn't a pattern of motion or a pattern of thinking. It is instead a pattern of *activity*. A pattern of activity doesn't specifically involve bodies or minds, moving or thinking. For example, instead of specifying that a certain part of Peter's body will beat quickly, or that a certain part of Peter's mind will think quickly, it just specifies that a part of the relevant thing is more active than before, without specifying whether it's a part of Peter's body or Peter's mind, or whether it's moving or thinking. More generally, a pattern of activity specifies the highly specific causal relations between things, without specifying anything attribute-specific about those things or their activities.

To help make sense of this proposal, let's set aside Peter for a moment, and consider an implausibly simple pattern of motion: four balls whose collisions form a circular pattern. We might depict that pattern using a directed graph:



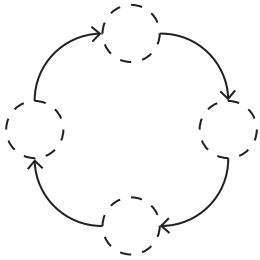
The arrows indicate which bodies cause which other bodies to move.

There is an idea corresponding to each of these bodies (by 2P3), and they form a pattern of thinking, where each idea causes the next idea to think about the motions of the corresponding body (by 2P7). We might depict it:



The arrows indicate which ideas cause which other ideas to think.

As I hope these graphs indicate, even though the first pattern involves bodies that move and the second pattern involves ideas that think, they still share the same *pattern of activity*. Unlike patterns of motion and patterns of thought, patterns of activity don't specifically involve bodies or ideas, motions or thoughts. They're less specific. Or, as I think Spinoza would put it, they're less "determinate" (e.g. E1p25c, E1p28). We might diagram that pattern of activity:



The arrows in this graph don't indicate thinking or moving. They just indicate causal influence. Likewise, the nodes of this graph don't indicate bodies or ideas. They just indicate things.

Peter's pattern of activity is, of course, far more complex. But I suggest that, like this pattern of activity, it doesn't indicate that it's about bodies or ideas, motion or thought.

As we're interpreting Spinoza, there's a fundamental disagreement between Spinoza and Descartes. According to Descartes, the essence of the mind is thinking. But according to Spinoza, the essence of the mind is a pattern of activity that doesn't specify thinking. To better understand this

disagreement, consider an analogous disagreement about statues. According to some philosophers, it is essential to a clay statue to be made of clay. But according to other philosophers, the same statue could have been made from marble, and thus it isn't essential to the statue to be made of clay. The essence of the statue might instead include only its shape. Likewise, according to Spinoza, it isn't essential to the mind to think, because the same thing could have been made from another kind of activity. In fact, according to Spinoza, it is *currently* made from infinitely many different kinds of activity, including motion. According to Spinoza, the essence of the mind includes only its pattern of activity. Just as some think that the essence of a statue includes its shape but not its matter, Spinoza thinks that the essence of the mind includes its pattern of activity but not its specific way of being active, namely thinking.

This interpretation might seem to conflict with passages that link a body's essence to its pattern of motion. For example:

> If the parts composing an individual become greater or less, but in such a proportion that they all keep the same pattern [*ratio*] of motion and rest to each other as before, then the individual will likewise retain its nature, as before, without any change of form. (2PhysL5)

I suspect this and similar passages are responsible for the widespread view that the essence of a body is its pattern of motion. But in all these passages, Spinoza merely commits himself to the conditional: If a body keeps the same pattern of motion, it retains the same essence. And that's also true according to our interpretation, because, according to our interpretation, if a body keeps its pattern of motion, it retains the same pattern of activity, and thus the same essence. Analogously, if a statue keeps its parts in the same configuration, it retains the same shape, and thus (we're supposing) the same essence. But this doesn't mean that the statue's parts are essential to it. The statue could have had different parts, so long as they were configured in the same way. Even if a statue's parts aren't essential to it, keeping the same parts in the same configuration might be sufficient for it to retain its essence.

In the next two sections, I will continue to fill out our interpretation by clarifying what it is for Peter's mind and body to "express" and "constitute" the same essence.

## 5. To Express

Spinoza says that the mind and the body are "one and the same thing, but expressed in two ways" (2P7S). What does he mean by "expressed [*expressa*] in two ways"?

*Exprimere* is derived from *ex* (out) and *primere* (to press). Classically, it was often used in discussions of sculpture. For example, here are Horace and Pliny:

> Near the Aemilian School a sculptor lives, a clever man at shaping [*exprimet*] fingernails and catching flowing hair in bronze…
>
> (Horace, *Ars Poetica*, ln 32–33; trans. Fuchs 1977, p. 85)

> The first person who modelled [*expressit*] a likeness in plaster of a human being from the living face itself, and established the method of pouring wax into this plaster mould and then making final corrections on the wax cast, was Lysistratus of Sieyon….
>
> (Pliny, *Natural History*, Bk 35 Ch 43 ln 153–155; trans. Rackham 1952, p. 373)

Given the connection to sculpture, '*exprimere*' acquired at least two senses. In one sense, to express something was just to represent it. In this sense, just as statues represent people, sentences represent people.[16] But in another sense, to express something was to be a determinate instance of it. In this sense, just as a clay statue and a marble statue might be determinate instances of the same form, my pet and your pet might be determinate instances of the same species.[17]

Spinoza uses 'express' in both senses. When he talks about what definitions express (e.g. 1P8S), he's using 'express' in the first sense. But when he talks about particular things as expressing God's attributes (e.g. 1P25C), he's using 'express' in the second sense. For example, when he says that bodies express the attribute of extension (2D1), he's saying that they are determinate ways of being extended. This use of 'express' might reflect the influence of those who, following Plato, think about bodies and other finite things as instantiating a higher, unchanging realm of essences.[18]

[16] See entry 8 under '*exprimō*' in the *Oxford Latin Dictionary*, 2012.

[17] See entries 6c and 6d under '*exprimō*'.

[18] Leibniz also uses 'express' in a metaphysical sense. Like Spinoza, he uses it to describe a certain kind of instantiation. See Mercer 2001, pp. 326, 348, 368, 405, 432–436.

When Spinoza says that the mind and the body are the same thing "expressed in two ways" (2P7S), I think he's using 'express' in the second sense.[19] In particular, I think he's saying that the mind and the body are determinate instances of the same essence, and thus of the same thing. They are *two* instances because they are in different attributes; the mind expresses that essence with ideas in the attribute of thought, while the body expresses that essence with bodies in the attribute of extension. There's an important further question about what makes the attributes numerically distinct. But, given that the attributes are numerically distinct (e.g. 1P11), there's no problem saying that the mind and body are *two* determinate instances of the same thing.

I think the analogy between times and attributes is again helpful. Morning Peter and Night Peter are two determinate instances of the same essence, and thus of the same thing. They are *two* instances because they are at different times: Morning Peter expresses that essence in the morning, and Night Peter expresses that essence at the night. There's an important further question about what makes the times numerically distinct. But, given that the times are numerically distinct, there's no problem saying that Morning Peter and Night Peter are *two* determinate instances of the same thing.

There's a natural worry. How can Spinoza describe Peter's mind and Peter's body as *two* ways in which *one* thing exists? That is, how can Spinoza describe Peter's mind and Peter's body as *two* instances of *one* thing? For every numerically distinct way in which Peter exists, it might seem as though there must be a numerically distinct thing that exists in that way. Spinoza might thereby seem to be paradoxically claiming that Peter's body and Peter's mind are both one thing and two distinct things.

I think the analogy between times and attributes is once again helpful. There is a view of persistence (endurantism combined with eternalism) according to which we can describe Peter as existing in one way in the morning and another way at night, without adding any new things to our metaphysics. According to this view, describing Peter as existing in two ways is just to describe the different properties he instantiates at each time. Metaphysically, there's just one thing (Peter), his properties at each time, and

[19] For other interpretations of 'express', see Deleuze 1968, pp. 11–13; Gartenberg 2017, pp. 2 and 16; Lin 2006, p. 343; Newlands 2018, pp. 23–24.

the times themselves. Likewise, when Spinoza says that the same thing is expressed in two ways, I think he's describing that thing as existing in one way in the attribute of extension and another way in the attribute of thought, without adding any new objects to his metaphysics. Describing Peter's mind and Peter's body as *two ways* of expressing the same thing is just to describe the properties that Peter instantiates in each attribute. Metaphysically, there's just one thing (Peter), his properties in each attribute, and the attributes themselves. Interpreted in this way, Spinoza is not claiming, paradoxically, that the mind and the body are both one thing and two different things.

Now that we have an understanding of Spinoza's claim, let's consider its context. Spinoza first claims that the mind and the body are "one and the same thing, but expressed in two ways" in the scholium following 2P7, the proposition that, "the order and connection of ideas is the same as the order and connection of things." Given our understanding of this claim, why would Spinoza wait until this scholium to make it?

2P7 establishes that, if the parts of a body are reordered, the parts of the mind must be reordered in the same way, and vice versa, because the ordering of bodies must be the same as the ordering of minds. Thus, 2P7 establishes that a body and its mind have the same pattern of activity, both internally and externally. According to our interpretation, a body and its mind are numerically identical if and only if they share the same essence, namely the same pattern of activity. Thus, given our interpretation, 2P7 establishes that a body and its mind are numerically identical, making its scholium a natural place to announce that consequence.

Our interpretation also explains why Spinoza begins the scholium by asking us to "recall here what we showed in the first part." In the first part of the *Ethics* he argued that the thinking substance and the extended substance are numerically identical because they share the same essence (see 1P14C1). Why would he want us to recall that? His transition to the next sentence ("So also…") suggests that he's about to give a parallel argument for the numerical identity of a body and its mind. And, according to our interpretation, that's what he does. He argues that a body and its mind are numerically identical because they share the same essence.

There might be another reason why Spinoza begins the scholium by asking us to "recall here what we showed in the first part." He previously argued that God's essence is power, or activity (see 1P34 and its demonstration), an argument just called to mind by his discussion of God's power in 2P7C. Thus, the thinking substance and the extended substance are numerically identical because of their activity. According to our interpretation, that's also why

a mind and its body are numerically identical. It shouldn't be too surprising that they're identical because of their activity, given his claim that "whatever exists expresses in a certain and determinate way the power of God" (1P36D).

This points us towards a new understanding of Spinoza's substance monism. According to Spinoza, there is only one substance, and it is both a thinking substance and an extended substance. How can a thinking substance and an extended substance be the same substance? After all, the former thinks and does not move (insofar as it has ideas but not bodies as modes), while the latter moves and does not think (insofar as it has bodies but not ideas as modes). As we're interpreting Spinoza, the relation between the thinking substance and the extended substance is like the relation between Peter's body and Peter's mind, in that they're identical, despite discernible differences, in virtue of sharing the same essence. In that case, Spinoza's substance monism is another counterexample to the Indiscernibility of Identicals.

From the claim that the mind and the body are "one and the same thing, but expressed in two ways" (2P7S), Spinoza later infers that they are "one and the same thing, which is conceived now under the attribute of Thought, now under the attribute of Extension" (3P2S; see also 2P21S). I take this to be the claim that, for example, we can't use our concept of Peter's mind to conceive of Peter as moving, or our concept of Peter's body to conceive of Peter as thinking. Given our interpretation, why would this follow? Because our concept of Peter's mind is specifically about how Peter is expressed in thinking, and thus we can't use this concept to conceive of Peter as expressed in another attribute. Analogously, the concept 'adolescent Peter' is specially about how he was expressed in his adolescence, and thus we can't use this concept to conceive of him in middle age, and the non-rigid concept 'my favorite clay statue' is specially about how a statue is expressed in clay, and thus we can't use this concept to conceive of the statue as possibly made of marble, even though it could have been made of marble. As someone in the seventeenth century might put it, Peter's mind and Peter's body have different *nominal* essences, despite having the same *real* essence.

## 6. To Constitute

Spinoza doesn't just describe things as expressing essences. He also describes them as *constituting* essences. For example, he says that "the essence of man is constituted by certain modifications of God's attributes" (2P10C).

He subsequently talks about the mind's essence as "constituted by" ideas (2P17S, 3P3D, 3P11S, 3GenDef, 5P9D, 5P36S, 5P38D), and the body's essence as "constituted by" bodies (4P39D). What is it for something to *constitute* an essence?[20]

If we take 'is constituted by' to mean something like 'is identical to' or 'is nothing but', these passages would establish that the essence of Peter's body is a pattern of motion, and the essence of Peter's mind is a pattern of thinking. These passages would thereby imply that Peter's body and Peter's mind have different essences, undermining our interpretation.

However, I think that Spinoza means something else. As I interpret Spinoza, essences are patterns of activity, and a thing *expresses* an essence by being a determinate instance of that pattern. When he says that a thing *constitutes* an essence, I think he means that it expresses that pattern of activity in a way that preserves the pattern.[21] For example, all bodies, minds, and other finite things *express* God's essence, because they are determinate instances of God's activity (1P25C). But they don't *constitute* God's essence, because they don't have the same pattern of activity as God. In particular, their patterns of activity are finite, in that each involves just some of God's activity, and is just one of the ways of making that activity determinate. In contrast, God's pattern activity is infinite, in that it involves all possible activity and doesn't involve a determinate number of things arranged into any determinate causal processes. As a result, finite things express God's essence without constituting it. A rough geometrical analogy might help: an orange triangle expresses a plane, because it is a determinate way of filling out a region of that plane. But it does not constitute the plane, because it fills only one region of that plane, and because there are many other ways of filling the same region (e.g. with blue). In contrast, Peter's body and Peter's mind not only express the same essence but also constitute the same essence, because they preserve the relevant pattern of activity.

This is similar to the sense of 'constitutes' in which one might say that a statue that *is* constituted by marble parts *will soon* be constituted by clay parts, because its marble parts are being replaced with clay parts. In this

[20] Descartes says that a principal attribute "constitutes" the essence of a substance (AT VIIIA: 25). Unfortunately, this isn't a helpful guide to what Spinoza means, because it's unclear how Descartes thinks that a principal attribute is related to its substance. For proposals, see Pasnau 2011 Ch 8, and Garber 2012.

[21] For a similar interpretation of 'constitutes', see Hübner 2017, pp. 46–49. According to Hübner, a person's essence indicates the range of possible properties that they can instantiate and at different times they instantiate different properties in that range.

sense of 'constitutes', it will be the same statue because its clay parts will have the same overall shape.

Spinoza seems to use 'constitutes' in this way in other contexts. For example, he writes that "as each [man] is affected by external causes with this or that species of joy, sadness, love, hate, etc., that is, as his nature is constituted in one way or the other…" (3P56D). Thus, according to Spinoza, a man's essence is constituted in one way at one time, and another way at another time. If 'constituted by' meant 'is identical to', he'd be saying that a man's essence is different at different times, an implication that Spinoza would have regarded as absurd (4Pref, 2D2). If 'constituted by' is understood in our way, however, he's saying that a man's essence has different determinate instances at different times, a claim that Spinoza would have been far more likely to accept.

One of the most important features of constitution is that constituting a thing's essence is sufficient and necessary for its existence. This is established by the first half of Spinoza's definition of 'essence':

> I say that to the essence of any thing belongs that which, being given [*dato*], the thing is necessarily posited and which, being taken away [*sublato*], the thing is necessarily taken away… (2D2)

I take 'being given' [*dato*] to be yet another way of saying that the essence is constituted, and 'being taken away' [*sublato*] to be yet another way of saying that the essence is no longer constituted. If I'm right, *e* is the essence of *x* iff anything that constitutes *e* is *x*, and anything that doesn't constitute *e* isn't *x*. In other words, constituting *e* is sufficient and necessary for *x*'s existence. This coheres with our interpretation. Anything that constitutes Peter's pattern of activity, such as Peter's body and Peter's mind, is Peter. Anything that doesn't constitute Peter's pattern of activity, such as Paul's body and Paul's mind, isn't Peter.[22]

It follows that sharing the same essence is sufficient for numerical identity. Because Peter's mind and Peter's body share Peter's essence, they are

[22] In the second half of the definition, Spinoza restates these claims in contrapositive form, distinguishing between when a thing is given in thought ("be conceived") and when it is given in existence ("be"). Our interpretation also coheres with Spinoza's claim about when a thing is given in thought. When we conceive of something with Peter's pattern of activity, such as Peter's body and Peter's mind, we thereby conceive of Peter, and when we conceive of Peter, whether as Peter's body or as Peter's mind, we thereby conceive of something with his pattern of activity.

each numerically identical to Peter. By the transitivity of identity, they are numerically identical to each other. Merely expressing the same essence doesn't have the same consequence. For example, Peter's body and Paul's body both express the same essence, in that they both express the attribute of extension, but are nonetheless numerically distinct. Thus, when things constitute the same essence, they are numerically identical, but when they merely express the same essence, they needn't be.

## 7. Restricting the Indiscernibility of Identicals

As we're interpreting Spinoza, he would reject:

> If *x* and *y* are numerically identical, *x* instantiates a property if and only if *y* instantiates that property.

But he might still accept:

> If *x* and *y* are numerically identical, *x* instantiates a property in an attribute at a time if and only if *y* instantiates that property in the same attribute at that time.

What could justify rejecting the first principle but not the second?

According to our interpretation, the essence of a thing is a pattern of activity, and patterns of activity can remain the same despite inessential differences along a number of dimensions. Perhaps least controversially, at least for philosophers working in the seventeenth century, they can remain the same despite inessential differences along the temporal dimension. For example, the essence of Peter can remain the same across times, despite all the inessential differences between Morning Peter and Night Peter. Because this pattern is Peter's essence, it follows that Peter exists at each of these "locations" in time. As we're interpreting Spinoza, Peter's pattern of activity can also remain the same across attributes, despite all the inessential differences between Peter's body and Peter's mind. Because this pattern is Peter's essence, it follows that Peter exists at each of these "locations" in the attributes. For these reasons, Spinoza would reject the Indiscernibility of Identicals.

But he might still accept the second principle, because patterns of activity might not allow for variation across other dimensions. For example, Peter's

pattern of activity might not allow him to exist simultaneously in Norway and Australia, because, within a given attribute at a given time, it might require all of his parts to be in causal contact with each other, and that's not possible if he has some parts in Norway and others in Australia. Even if some things can have parts that are far apart (e.g. the Norwegian army), Peter's body presumably can't. His pattern of activity might also restrict the responses of his body, so that he can have at most one speed, height, complexion, and so on, at a time. Thus, while his pattern of activity might allow him to exist at more than one time, and in more than one attribute, it might not allow him to exist in more than one location, or with more than one speed, height, complexion, and so on, at a given time in a given attribute. Thus, Spinoza might accept the second principle for the same reason he rejects the Indiscernibility of Identicals: his view of essences as patterns of activity.

## 8. Modes of Modes

There's a twist. In Spinoza's metaphysics, Peter's motion and Peter's thinking are themselves modes, and thus thing-like. Just as Spinoza would say that Peter's body and Peter's mind are one and the same thing, he would also say that Peter's motion and Peter's thinking are one and the same thing. He writes:

> [B]oth the decision of the mind and the appetite and the determination of the body by nature exist together—or rather are one and the same thing, which we call a decision when it is considered under, and explained through, the attribute of thought, and which we call a determination when it is considered under the attribute of extension and deduced from the laws of motion and rest. (3P2S[ii]; see also 4P8D)

According to our interpretation, if Peter's motion and Peter's thinking are identical, they must share the same essence. What essence? Consider Peter's heart rate at the start of the race, 80 beats per minute. Just as computer programs are built out of subprograms, so also Peter's pattern of activity is built out of subpatterns of activity. One of those subpatterns indicates the conditions in which his heart rate reaches 80 beats per minute, the conditions in which it then decreases or increases, the internal processes that generate that rate, and the effects that rate has on those and other processes. This subpattern of activity is the *essence* of Peter's heart rate. Due to Spinoza's

causal parallelism, there is a corresponding mode of Peter's mind that shares the same pattern of activity; for every change in Peter's body, there is a corresponding and simultaneous change in his mind, so that while Peter's heart rate is 80 beats per minute, the corresponding mode is thinking at the same rate. Because these activities share the same pattern, they are identical, despite discernible differences. Likewise for all of Peter's other motions and thoughts.

This makes it hard to categorize Spinoza's view in contemporary terms. Like the dualist, he thinks that there are discernible differences between Peter's body and Peter's mind. Like the property dualist, he thinks that Peter's body and Peter's mind are numerically identical, but that there are discernible differences (indeed *fundamental* differences) between its mental and material properties. Finally, like the property materialist, he thinks that Peter's body and Peter's mind are the same thing, and that each of its mental properties is numerically identical to one of its material properties.

It shouldn't be surprising that Spinoza's view is hard to categorize. Once we allow for violations of the Indiscernibility of Identicals, we need twice as many categories, because we need to allow for the possibility of discernibility without numerical distinctness. We can't take for granted that Peter's body and Peter's mind are identical if and only if they're indiscernible, or that their properties are identical if and only if their properties are indiscernible.

## 9. Further Consequences

Because the parts of Spinoza's metaphysics are interdependent, a new interpretation of one part almost always requires new interpretations of other parts. I already mentioned the consequences of our interpretation for Spinoza's conatus doctrine and substance monism. I'll end by mentioning a few of its other consequences, and what more needs to be said about them.

The first consequence is about God's attributes and their relation to his essence. Spinoza defines an attribute as what constitutes the essence of a substance (1D4). According to our interpretation, the essence of a thing is a pattern of activity, and it is constituted by determinate instances of that pattern. Thus, according to our interpretation, God's essence is a pattern of activity, and his attributes are determinate instances of that pattern. What does that mean? Recall that God's pattern of activity is infinite in that it involves all possible activity and doesn't involve a determinate number of things arranged into any determinate causal processes. It is activity

(i.e. power) itself, rather than any specific instance of activity (1P34). God's attributes are his fundamental, irreducible *kinds* of activity (2P1, 2P2). They are the activity of thinking itself, the activity of moving itself, and so on. They *express* God's pattern of activity (1D6), because the activity of thinking and the activity of moving are more determinate than activity itself. They *constitute* God's essence (1D4), because their patterns of activity are also infinite, in that they involve all possible activity of a given kind, and don't involve a determinate number of things arranged into a determinate causal process. Obviously, more needs to be said about all of these claims, including how they cohere with all of the other things Spinoza says about God's attributes and essence.

The second consequence is about the ontological status of the attributes. Because substances constitute the same essence, they are numerically identical. Hence, there's only one substance (1P14). But attributes also constitute the same essence, and they aren't numerically identical—there are infinitely many of them (1D6). What explains the asymmetry? Why is constitution sufficient for the numerical identity of modes and substances, but not for attributes? I think the best explanation is that attributes aren't *things*, that is, substances or modes (1P6C, 1P15D, 1P28D). Or, to put it in other terms, they aren't things in the same sense as substances and modes. As a result, they are not numerically identical in virtue of constituting the same essence. More needs to be said about the ontological status of attributes and the principles governing their numerical identity.

The third consequence is about the ontological status of the essences. Peter's essence can't be a substance, because there are many essences, and only one substance. But it also can't be a mode, because all modes belong to a particular attribute (e.g. 1P25C), and, according to our interpretation, Peter's essence is a pattern of activity that doesn't belong to any particular attribute. I think this shows that Peter's essence, like God's attributes, isn't a *thing*. As with the attributes, more needs to be said about this suggestion. More also needs to be said in response to those who insist that a thing's essence has the same ontological status as the thing itself (e.g. Lærke 2017), and those who deny that abstract structures can play an explanatory role in Spinoza's metaphysics.

The fourth consequence is about our knowledge of essences. Spinoza says that we can adequately conceive of the essences of things (2P40S2). Thus, our interpretation implies that we can adequately conceive of essences without conceiving of them under any specific attribute. More needs to be said about how we can conceive of essences in an attribute-independent way without relying on abstraction (as required by 2P40S1).

More also needs to be said about how we can conceive of essences in both an attribute-independent way and an attribute-dependent way (2P8).

The fifth consequence is about the diversity of bodies. According to our interpretation, it's impossible for two bodies to share the same pattern of activity. Thus, no matter how similar another body might seem, there must be an underlying difference in its pattern of activity, even for the simplest bodies (see 2PhysL1, 2PhysA2″).[23] This might help explain why God's essence produced such a diverse world, rather than, for example, a world of homogeneous balls spinning in place. Perhaps God's essence cannot produce a less diverse world because multiple bodies cannot share the same pattern of activity, or else they wouldn't be multiple. Spinoza's view would then be continuous with a Platonic tradition in which God's essence gives rise to a world of maximal diversity.[24]

Finally, we've been focusing on the essences responsible for numerical identity. In the contemporary jargon: we've been focusing on individual essences. Spinoza sometimes talks as though there are also essences shared by everything of a given kind, such as the essence shared by all men (1P8S, 1P17S[II], 4P36S, 4P35D, 5P4S). In the contemporary jargon: he sometimes seems to talk about kind essences. There's a debate about whether he's really committed to kind essences (see Hübner 2015a). If he is, the essence shared by all men would be a pattern of activity that's less specific than Peter's pattern of activity, so that it is also shared by Paul as well as all other men. More would need to be said about these less specific patterns of activity.

## 10. Conclusion

If I'm right, Spinoza's view is of great historical interest in that it's both grounded in tradition and genuinely innovative.

[23] This is at odds with Garrett's (1994, pp, 80–81) suggestion that the simplest bodies are completely homogeneous.

[24] For background on this tradition, see Mercer 2001, pp. 180–184. There is an independent reason to think that for Spinoza, God's essence gives rise to a world of maximal diversity. In response to the question, 'Why didn't God create all men so that they would be governed by the command of reason?', Spinoza answers that God's essence produces all things that can be conceived by an infinite intellect, a reference to 1P16 (1App). Because Spinoza's answer isn't specific to men or their intellects, and because an infinite intellect can presumably conceive of infinitely many different patterns of activity, this is further evidence that he thinks that God created a world of maximal diversity.

Spinoza's view might also be of contemporary interest. To start, it suggests a new view of diachronic identity. A person's identity over time might be due to a pattern of activity that is constant from infancy to old age. The pattern might include dispositions that manifest under highly specific external and internal conditions, so specific that most are never manifested. On this view, a person's identity over time wouldn't be due to causal relations between past and future selves, such as whether a past self was causally responsible for the memories of a future self, or whether a past self's body developed into a future self's body. Instead, a past self would be the same person as a future self in virtue of sharing the same pattern of activity, a determinable.[25] Of course, this view would have challenges. One challenge would be to specify the dispositions. Another challenge would be to explain why someone else can't share all the same dispositions.

Spinoza's view might also be of interest to contemporary property dualists. These philosophers claim that there are at least two fundamentally different kinds of properties—material properties and mental properties—and that we instantiate both kinds. But some wonder: How can one and the same thing instantiate properties of both kinds? Insofar as the properties are fundamentally different, the suggestion that we instantiate both can seem as objectionable as the claim that the same thing instantiates both material properties (e.g. *is ten kilograms*) and mathematical properties (e.g. *is a prime number*). As Schneider (2012, 2013) effectively points out, property dualists haven't given a compelling response, because they offer merely *negative* reasons. They claim that there's no reason why a thing *can't* instantiate properties of these two kinds. That's an unsatisfying response because anyone who grants the incommensurability of the mental and material aspects of the world owes us an account of how they're nonetheless reconciled into the same world. It's unsatisfying to be told merely, "Well, why not?"

Spinoza directs property dualists towards a more satisfying answer: identify a pattern of activity that is shared by a person's material and mental properties. Property dualists needn't agree with Spinoza that material causation and mental causation are independent, so that material properties affect only material properties and mental properties affect only mental properties. That would require panpsychism and causal parallelism, because for every material change that resulted from someone's material

[25] For a summary of standard views, see Olson (2021). Wilson (manuscript) suggests that a thing's identity over time is due to its determinable properties. Spinoza's view would fit naturally into her framework.

properties, there would have to be a corresponding mental change that resulted from their mental properties. If a material property of your brain prompted your finger to turn on the light, your intention to turn on the light would need a corresponding effect on the mental properties of your finger and the bulb.

As an alternative, property dualists could allow material and mental properties to share the same causes and effects. In that case, if some of your material properties realized a given pattern of activity, we could substitute the corresponding mental properties without altering the pattern. For example, if your intention to turn on the light also prompted your finger to flip the switch, we could substitute it for the corresponding material property without altering the pattern of causes and effects. If sharing the same pattern of activity is sufficient for identity, it would follow that your mind and body are identical.

Property dualists might thereby maintain that the differences between material and mental properties are so fundamental that they must be instantiated by discernibly different things, namely the mind and the body, while also insisting that material and mental properties are instantiated by the same thing, because mind and body share the same essence. They would thereby acknowledge the incommensurability of the mental and material aspects of the world while also giving an account of how they're reconciled into the same world. Unlike Spinoza, they would just need to deny that the material properties and mental properties are themselves numerically identical, at least if they want to remain property dualists.

Spinoza's view might also be of interest to contemporary neutral monists. These philosophers claim that the most fundamental entities are "neutral" in that they're neither material nor mental. They are motivated by the conviction that minds and bodies are so fundamentally different that they can't emerge from each other. But some wonder: How could minds and bodies emerge from neutral entities? If minds can't emerge from bodies because bodies lack mental features, it can seem mysterious how minds could emerge from neutral elements that also lack mental features (Stubenberg 2018, Sect. 7.3). Similarly, if bodies can't emerge from minds because minds lack material features, it can seem mysterious how bodies could emerge from neutral entities that also lack material features. To the extent that it's explicable how minds and bodies can emerge out of the relevant entities, it might seem that those entities can't really be neutral. For this reason, there's a danger that neutral monism ultimately collapses into an unorthodox version of idealism or physicalism (Stubenberg 2018, Sect. 7.2, 8.5).

Spinoza's view might point neutral monists towards a satisfying answer: identify the neutral entities with determinables. Determinables are neutral between their determinate instances. For example, redness is neutral between apples and roses, and sphericity is neutral between soccer balls and golf balls. Thus, if the neutral entities had minds and bodies as determinate instances, they would not themselves be material or mental. It would thus be clear in what sense the neutral entities are *neural*. It might also be clear in what sense minds and bodies *emerge* from them. It would be the sense in which apples emerge from redness and soccer balls emerge from sphericity. One challenge would be to clarify the sense in which the neutral entities are more fundamental, because it's not obvious in what sense determinables are more fundamental than their determinate instances. Another challenge would be to identify the factors responsible for the existence and distinguishing features of minds and bodies, because that's not something a determinable can explain. Even if apples emerge from redness, redness doesn't completely explain the existence of apples or what distinguishes them from roses.

Assuming these challenges can be met, neutral monists might maintain that the differences between material and mental properties are so fundamental that they cannot be constructed out of each other, while also insisting that they are constructed out of common elements. Like property dualists, they would thereby acknowledge the incommensurability of the mental and material aspects of the world while also giving an account of how they're reconciled into the same world.

In this way, Spinoza's view of the mind's relation to the body potentially gives us a way to acknowledge a genuine fissure in the world, while also giving us the resources to unify it. Whether such a proposal ultimately succeeds is, of course, an open question. But at the very least, it's yet another example of why Spinoza's metaphysics deserves careful study.[26]

[26] I completed the first draft of this paper in 2014. In the meantime, four sections grew into independent papers: "Three Medieval Aristotelians on Numerical Identity and Time," "Descartes on Numerical Identity and Time," "Spinoza on Numerical Identity and Time," and "Two Puzzles about Thought and Identity in Spinoza." There are two additional papers in preparation, one on the attributes and the other on essences. A generous group of friends and colleagues helped cultivate this stem and its offshoots. With apologies to those I'm forgetting, I would like to thank Sebastian Bender, John Carriero, Shamik Dasgupta, Michael Della Rocca, Don Garrett, Colin Marshall, Jeffrey K. McDonough, Yitzhak Melamed, Hedda Hassel Mørch, Elliot Paul, Galen Strawson, and Achille Varzi. I would also like to thank audiences at the University of California at Los Angeles, University of California at Irvine, University of Colorado at Boulder, University of Texas at Austin, and University of Toronto, as well as students at Columbia University and New York University.

## Primary Sources

TIE Treatise on the Emendation of the Intellect
KV Short Treatise on God, Man, and His Well-Being
CM Appendix Concerning Metaphysical Thoughts
Except when noted, all translations are from Curley in Spinoza (1985).

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