Spinoza on Mind, Body, and Numerical Identity

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Abstract

Spinoza claims that a person's mind and body are one and the same. But he also claims that minds think and do not move, whereas bodies move and do not think. How can we reconcile these claims? I believe that Spinoza is building on a traditional view about identity over time. According to this view, identity over time is linked to essence, so that a thing that was moving in the morning is identical to a thing that is resting at night, provided that they share the same essence. I believe that Spinoza has a similar view about the identity of minds and bodies. In particular, as I interpret Spinoza, a thing that is thinking in the attribute of thought is identical to a thing that is moving in the attribute of extension, provided that they share the same essence.

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. The following three claims seem mutually inconsistent:

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.

Which claims, if any, would Spinoza reject?

I will argue that Spinoza would reject (1c), i.e., the Indiscernibility of Identicals. This response might initially seem absurd, because many now regard the Indiscernibility of Identicals as an obvious truth, and perhaps even

a logical truth (e.g., Tarski 1994, p.50). But Spinoza would also reject the Indiscernibility of Identicals in response to a parallel puzzle about identity over time (see my manuscript b). In particular, he is working in a medieval Aristotelian tradition that links identity over time to essence, rather than indiscernibility, so that the same body can have different properties at different times. 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. I'll argue that Spinoza is using this tradition to develop a new understanding of the mind's relation to the body.

It might help to compare his 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's essential to the mind and body is a pattern of activity, a pattern that the mind actualizes in its thoughts and the body actualizes in its 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 sufficient for identity. 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 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 mo-

tion, 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, summarizing what I say in other papers (manuscript a, manuscript b).

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 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.

Which claims, if any, should we reject? Contemporary philosophers reject either the discernibility or the identity of Morning Peter and Night Peter, i.e., (2a) or (2b).[1] But there's another tradition, rooted in Aristotle, in which

[1]See the surveys by Haslanger (2003), Wasserman (2006), Kurtz (2006), and Sider (2007). There's a puzzle only if the Indiscernibility of Identicals entails: If x and y are numerically identical, and x instantiated a property, then there is no time at which y

the Indiscernibility of Identicals has a different status. I say a lot about that tradition in the other papers. Here, I'll just summarize the conclusions most relevant to this paper.

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.

Regardless of whether this is Aristotle's view, it is the view of many medieval Aristotelians, including Aquinas:

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instantiated a contrary property. This is how I formulate the principle in my other papers, because my focus in those papers is on the puzzle of identity over time (manuscript a and manuscript b). I'm formulating it differently in this paper, because my ultimate focus is on the puzzle of mind-body identity, and the temporal variable doesn't play a role in generating the puzzle of mind-body identity, making it an unnecessary distraction. I also think the puzzle of mind-body identity is better stated using a principle that says x and y must have the same properties, rather than a principle that says that y and x cannot have conflicting properties, because while it's clear that moving and resting are conflicting properties, it's less clear that moving and thinking are conflicting properties.

> [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 claims that a man is numerically identical over time because of his rational soul, a substantial form. Thus, he would say that Peter is numerically identical over time because of Peter's rational soul. He would also say that Peter is materially different in the morning and at night, due to a loss of water and nutrients, and the corresponding changes in his size and color. Thus, he would say that Peter is identical over time despite discernible differences. In that case, Aquinas would reject the Indiscernibility of Identicals.

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

Descartes has a similar view about the identity of a person's body over time. In a 1645 letter to Mesland, Descartes says that a person's body remains numerically the same over time, despite 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. (AT IV 166; Trans. Cottingham et al. 1984, 3:243)

Thus, as long as Morning Peter and Night Peter are substantially united to the same soul, Descartes would say that Morning Peter and Night Peter are identical yet discernible. In that case, Descartes would reject the Indiscernibility of Identicals.

For Descartes, what is the essence of Morning Peter and Night Peter? It's extension. Because all other bodies share this essence, 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.

The fact that Aquinas, Descartes, and others would reject the Indiscernibility of Identicals doesn't mean that they completely sever the link between identity and indiscernibility. For example, they 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, 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, emphasis added, Trans. Ross 1984b, p.46). 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).

Like Aquinas and Descartes, I believe that Spinoza would respond to the puzzle about identity over time by rejecting the Indiscernibility of Identicals. 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)[2]

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, he would say that Morning Peter and Night Peter are identical yet discernible. Spinoza would thus reject the Indiscernibility of Identicals.

What pattern of motion is shared by Morning Peter and Night Peter? It 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. For example, it can include the disposition of the heart to beat rapidly when running and slowly when resting. 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). 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. 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.

Like computer programs, patterns of motion can be arbitrarily complex. Peter's 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. Peter's re-

[2]Curley translates *ratio* using 'manner' in Spinoza 1985. But Garrett (1994, p.86–7) persuasively argues that 'pattern' better conveys what Spinoza has in mind.

sponse 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. For this reason, Peter's pattern of motion can be more complex, and therefore more distinctive, than the dispositions encoded in his DNA. Peter's pattern of motion can also be complex enough to allow us to say how he would have behaved under counterfactual conditions, such as if the pistol were a little louder, even if those counterfactuals are metaphysically impossible, given Spinoza's necessitarianism (1P33).

I'll say more about patterns of motion later. But I hope this is already enough to see how Morning Peter and Night Peter might share the same pattern of motion, and thus why Spinoza might be committed to their identity.

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 sharing the same essence is supposed to be sufficient for identity (2D2).

In the next section 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. If I'm right, Spinoza has a unified account of the numerical identity of Morning Peter and Night Peter and the numerical identity of Peter's body and Peter's mind.

For now, I just want to point out two potential ambiguities in the question. First, Spinoza sometimes talks as though there is an essence 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). But we don't need to get entangled in that debate. We're interested in the essence that a thing shares with nothing else. In the contemporary jargon: we're interested in individual essences.

Second, Spinoza sometimes talks as though there are "actual essences" in addition to formal essences (3P7). There's a debate about whether he's really committed to any additional essences and, if he is, what role they play in his metaphysics. But we don't need to get entangled in that debate either. We're interested in whatever essences are responsible for numerical identity,

regardless of whether they are actual essences (as Garrett argues in 2009, fn 4) or formal essences (as I believe).

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 identity and the discernibility of Peter's body and Peter's mind, i.e., (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 he'd regard (1a)–(1c) as mutually inconsistent.

(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 could have trembled, sobbed, and laughed (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 his metaphysics, namely his accounts of substance and attribute (see his demonstration of 1P10, and his subsequent use of it in 2P5D and 2P6D).

To better understand his commitment to the discernibility of Peter's body and Peter's mind, let's consider two proposals ruled out by the evidence. The first proposal is property dualism, the view that Peter's body is identical to Peter's body, and that they have all the same mental properties (e.g., is thinking) in addition to all the same material properties (e.g., is moving). According to proposal dualists, (1a) is false because Peter's mind is moving as well as thinking. The second proposal is property materialism. Property materialists agree that Peter's body has all the same properties as Peter's mind, but deny that they have mental properties properties in addition to material properties. According to property materialists, (1a) is false because thinking is a kind of moving, and thus if Peter's mind is thinking, it is also moving. Hobbes (2012, Part 1, Ch 2) is a property materialist.

Both proposals are ruled out by the evidence. First, both proposals imply that we can compare the powers of Peter's mind and Peter's body, contrary

to what Spinoza says (5P2). According to property dualists, we can compare their powers because each of them thinks and moves. According to property materialists, we can compare their powers because the power to think is just a power to move a body in a certain kind of way, e.g., to activate neurons within a brain. Second, both proposals imply that there's no principled reason why Peter's mind can't cause other bodies to move, or why Peter's body can't cause other minds to think, contrary to what Spinoza says (3P2). There's also a problem specific to property dualism: Spinoza claims that minds and bodies are themselves properties of God (1P15). Thus, if a thing's mental properties are distinct from its material properties, Peter's mind and Peter's body are distinct properties of God. But, as we'll see, there's compelling evidence that Spinoza would insist that Peter's mind is identical to Peter's body.

As a way of defending these proposal, one might find another way of interpreting the passages that seem to contradict them. In particular, one might interpret 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.[3] But that's hard to accept. First, as a proposition, this is Spinoza's official statement of his view, and it doesn't mention our concepts of the 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

[3]Koistinen (1996, p.33) and Davidson (1999, p.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 the mind and body differ only in how we describe them, which at least suggests that motion is mind-dependent. Curley (1988, p. xiv, 68-69, 74–78) and Hampshire (1969, esp. p.19–22) more explicitly think that the 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) says about the attributes (p.529–531), she presumably thinks that the mind and body differ only in how we think about them.

body cannot determine the mind to thinking" even though be 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).

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.

(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):[4]

> 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 *Metaphsyics*, with the Latin translation from the same edition in brackets:[5]

[4]The inventory of the books in his 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.

[5]Some scholars might think that Aristotle is talking about universal substances rather

> 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)

These translations aren't anomalous. Scholastic authors standardly use 'one and the same' for numerical identity.[6] This shouldn't be surprising, because it's indicated by the expression itself, with 'same' [*eademque*] indicating 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, when Spinoza says that the body and mind are one and the same thing, he seems straightforwardly committed to their numerical identity. In fact, it's unclear how he could have made that commitment any clearer.[7]

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than particular substances (for an overview, see Gill 2005, p.229–233). These scholars might deny that Aristotle is talking about numerical identity. However, late medieval Aristoteleans wouldn't think that Aristotle is talking about universal substances. They interpret Aristotle as rejecting universal substances in favor of nominalism.

[6]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, 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).

[7]Bennett, Marshall, and Aquila claim he means something else. According to Bennett, he means they share a part, in particular the same trans-attribute mode (1981, 577–579, 1984, p.141–149, 1994, p.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 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 (2015b, p.168–169). Someone sympathetic with Bennett's or Marshall's proposals might similarly interpret Spinoza as

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, 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, 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 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, 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

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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, Huebner'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). There's obviously much more to say, but this is why I'd rather search for a proposal that preserves the literal meaning of what Spinoza says.

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 both 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.

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

[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 423-4). 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. Moreover, Descartes distinguishes these two senses only in order to make clear that he's using it in the first, intrinsic sense. He never uses it in the second, combinatorial 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.

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.[9] Like these other philosophers, he also presumably wouldn't respond that Peter's body and Peter's mind are unified merely in that Peter's body is represented by Peter's mind, because then Peter's mind would be similarly united with all the other bodies it represents, and because such a union seems even weaker than a mere aggregate, because a mind can represent a body that isn't part of the same aggregate.

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."

To better understand Spinoza's commitment to the identity of Peter's body and Peter's mind, let's consider two proposals that seem to be ruled out by the evidence. The first proposal is that Peter's body and Peter's mind are distinct things with parallel causal roles (by 2P7). The second proposal is that Peter's body and Peter's mind are distinct things that compose a whole, perhaps because of their parallel causal roles, so that Peter exists "partly" in the attribute of extension and "partly" in the attribute of thought. (These are the analogs to exdurantism and perdurantism about identity over time; see Hawley 2001, Lewis 1986, Ch 4.)

These proposals seem to be ruled out by the evidence, both because they imply that Spinoza means something else by 'one and the same thing', and because they don't sufficiently unify Peter's body and Peter's mind.

In defense of the second proposal, Marshall (2009) 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 he doesn't mean numerical identity. But it's hard to see how Spinoza could reasonably expect his readers to know that. As far as I can tell, there's no historical precedent for such a convention. There's also no way he could reasonably expect his readers to know what else he meant by 'one and the same thing'. For example, there's no way he

[9]For general discussion, see Pasnau 2011, Ch 15, esp. 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.

could expect his readers to know that this means that the mind and body are parts of the same whole in virtue of having parallel causal roles, as Marshall suggests.

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.

(⊥) Let's finally 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.[10] 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*.

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 the 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* depend on

[10] Jarrett (1991, p.470) suggests a similar proposal, though 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.

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, i.e., (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.[11]

[11] As an alternative, Newlands suggests that, while the differences between the body and mind are merely conceptual, they are not mind-dependent (2012, p.46; 2010, p.76). 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.

Della Rocca acknowledges that his interpretation commits Spinoza to this result, and that this is a kind of idealism (2012a, p.13). It's worth mentioning, however, that Della Rocca doesn't focus on the way that Spinoza distinguishes bodies. His instead focuses on the Principle of Sufficient Reason. For our purposes, either path is fine.[12]

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, p.195–197, Newlands 2012, p.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, p.13–4, 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.

Let's review. 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, i.e., (1a) and (1b). In contrast, Spinoza never explicitly accepts the Indiscernibility of Identicals, i.e., (1c), and, as far as I can tell, none of his claims commit him to 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. Moreover, if he accepted the Indiscernibility of Identicals while also committing himself to the identity and discernibility of Peter's body and Peter's mind, he'd be committed to a kind of idealism that seems incompatible with his basic commitments. Thus, if we want to accommodate the textual evidence and systematic considerations that seem

[12]Della Rocca says that the Principle of Sufficient Reason commits Spinoza to identifying existence with intelligibility (2012a, p.9–11; see also 2003, p.85; 2008, p.36; 2012b, p.159–161). For criticism, see Garber 2015, p.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.

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,[13] we should conclude that Spinoza would reject the Indiscernibility of Identicals.[14]

Importantly, this conclusion doesn't imply that Spinoza completely severs the link between identity and indiscernibility. In particular, he might still accept a weaker principle, like: If x and y are numerically identical, and x instantiates a property in an attribute at a time, then y doesn't instantiate a conflicting property in the same attribute at the same time. What might justify accepting this principle while rejecting the Indiscernibility of Identicals?

I think there's a helpful analogy between times and attributes. Just as Peter cannot instantiate motion and rest at the same time, but can instantiate motion at one time and rest at another time, so also Peter cannot instantiate motion and thought in the same attribute, but can instantiate motion in one attribute and thought in another attribute. Less succinctly: Peter might exist "wholly" in the morning and at night, in that he exists at those times, and not by having a distinct part at each of them. He might also instantiate different properties at each time; there might be no sense in which he has the same properties at both times. Similarly, Peter might exist "wholly" in the attribute of extension and in the attribute of thought, in that he exists in those attributes, but not by having a part in each of them. He might also instantiate different properties in different attributes; there might be no sense in which he has the same properties in both attributes.

If this is how Spinoza is thinking about times and attributes, we'd expect him to reject the Indiscernibility of Identicals in favor of a principle that's restricted to times and attributes. Without these restrictions, the numer-

[13] 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.

[14] 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 gives up the Indiscernibility of Identicals. 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). Garrett (2017) independently suggests that Spinoza would reject a version of the Indiscernibility of Identicals, though Garrett's approach is very different.

ically same thing couldn't wholly exist at different times and in different attributes, given that it instantiates different properties at each time and in each attribute. I'll return to the analogy between times and attributes later, after I've introduced more details about our interpretation.

4 Essences

So far, I just 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 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 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) (see Morrison 2017). 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; I'll say more in Section 6).

Fourth, it is suggested by what he says about his conatus doctrine (3P6). According to the conatus doctrine, the essence of Peter's body isn't a *random* collection of activities. It's the activities that together help Peter's body survive, despite predators, diseases, starvation, and other threats to its existence. 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 *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? As mentioned in the last section, it's sufficient for Peter's body's identity over time that it has the same pattern of motion. This might suggest that the essence shared by Peter's body and Peter's mind is a pattern of motion. However, Peter's mind would then be conceived through that pattern of motion (by 2D2), and thus through the attribute of extension, even though Spinoza insists that minds are conceived only through the attribute of thought (2P5D). Thus, the essence shared by Peter's body and Peter's mind can't be a pattern of motion. For the same reason, it can't be a pattern of thinking.

As an alternative, I suggest that the essence shared by Peter's body and Peter's mind is a pattern of activity that doesn't specify moving, thinking, or any other kind of activity. Peter's body actualizes this essence as a pattern of moving, while Peter's mind actualizes it as a pattern of thinking. 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's 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 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.

Some will immediately object that everything in Spinoza's metaphysics, including essences, must belong to at least one attribute, and therefore essences must specify moving, thinking, or some other kind of activity. To streamline the discussion, I will consider this objection in the penultimate section. For now, I want to continue filling in the details of our interpretation.

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 quickly. I'm suggesting that the essence of Peter's body and Peter's mind 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 causal relations between things, without specifying anything attribute-specific about those things or their activities. It's like a directed graph that doesn't specify whether the nodes are bodies or minds, or whether the arrows indicate moving or thinking. It's like a Ramsey sentence that doesn't specify whether the variables pick out bodies or minds, or whether the causal relations indicate moving or thinking.

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 actualized by another kind of activity. In fact, according to Spinoza, it is *currently* actualized by 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.

How are patterns of activity distinguished? Patterns of activity specify the causal relations between things, and are distinguished by the causal relations they specify. For example, the essences of two bodies specify different responses to at least some interactions. It's natural to wonder why two bodies can't share exactly the same pattern of activity. To streamline our discussion, I'll treat this as an objection and consider it in the penultimate section. For now, I just want to point out that patterns of activity are distinguished by what they specify, rather than any further essences, thereby avoiding a regress.

Importantly, just because Peter's body and Peter's mind share the same essence, and are therefore numerically identical, it doesn't follow that our concept of Peter's body and our concept of Peter's mind are interchangeable, so that we can use our concept of Peter's mind to conceive of Peter as moving. Our concept of Peter's mind is specifically about how Peter is actualized in thinking, and thus we can't use this concept to conceive of Peter as moving. Analogously, the concept 'adolescent Peter' is specially about how he was actualized 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 actualized 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, but the same *real* essence. I think this is what Spinoza is saying in passages like "[T]he mind and the body 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).

One of the attractive features of our interpretation is that it nicely explains why our concepts of Peter's body and Peter's mind aren't interchangeable. Because our concept of Peter's mind is specifically about how Peter is actualized in thinking, and there's a metaphysical difference between how he's actualized in thinking and how he's actualized in motion, we can't use our concept of Peter's mind to conceive of Peter as moving. Thinking about a body is not the same as thinking about its mind, at least if we're thinking about features of the body that aren't shared by its mind, such as its size, shape, and motion. Analogously, because the non-rigid concept 'my favorite

clay statue' is specially about how a statue is actualized in clay, and there's a metaphysical difference between being made out of clay and being made of marble, we can't use this concept to conceive of the statue as made of marble.

Our 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. 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.

Now that we've introduced more details about our interpretation, let's return to the analogy between times and attributes. According to our interpretation, the essence of a finite 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 is a pattern of activity, and it 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 wholly exists at each of these "locations" in time. As we're interpreting Spinoza, patterns of activity can also remain the same across attributes, such as the inessential differences between Peter's body and Peter's mind. Thus, the dimensions along which

Peter's existence is "spread out" correspond to the dimensions along which his essence can remain the same.

This helps us understand an important but puzzling proposition from the first part of the *Ethics*:

> From the necessity of the divine nature there must follow infinitely many things in infinitely many ways [*modis*]... .(1P16)[15]

The wording of this proposition is puzzling. Why does Spinoza include the clause 'infinitely many ways'? Based on how he later uses this proposition, the "infinitely many ways" seem to correspond to God's infinitely many attributes (see 1P25S&C). According to our interpretation, when he says that each thing is expressed in each of God's attributes, he's saying that each thing is actualized in each of God's attributes. Thus, when he says that from God's essence there follow infinitely many things in "infinitely many ways," he's saying that one thing is actualized in each of God's attributes. For example, Peter is actualized in each of God's attributes, including in thought as Peter's mind and in extension as Peter's body.

In the next section, I will continue to fill out our interpretation, by clarifying what it means to say that Peter's body and Peter's mind *actualize* the same essence. Or, as Spinoza would put it, that they *express* the same essence.

5 To Actualize

What is it for a thing to *actualize* its essence? It's for it to be a determinate instance of that essence. In this respect, it's like the relation between a clay statue and its shape, in that a bronze statue and a marble statue could also have had that shape. But the *actualize* relation isn't like the relation between a clay statue and its shape in all respects, because, while a clay statue presumably isn't *identical* to everything with the same shape, a thing is identical to everything with the same essence. In addition, while a clay statue's shape is a *property* of the statue, a thing's essence isn't a property of it (see 1D5 and 2D2).

[15]Curley translates *modis* using 'modes' in Spinoza 1985. But 'ways' is also acceptable (see Melamed 2013, p.150).

As I interpret Spinoza, the *actualize* relation is somewhat idiosyncratic, insofar as it's a relation involving essences, and, as I interpret Spinoza, he has a somewhat idiosyncratic view of essences. The *actualize* relation thus doesn't map neatly onto any of the relations we're more familiar with. I'll say more about Spinoza's view of essences in the next section. But I hope the basic metaphysical picture is clear enough: A thing's essence specifies how that thing is disposed to act. A thing actualizes its essence *at a time*, in that it is acting in only one of the specified ways at that time. It actualizes its essence *in an attribute*, in that it is acting in only one of the specified ways in that attribute. Analogously, a computer's program indicates what that computer is disposed to do. The computer then actualizes that program at a time, in that the computer is in only one of the indicated states at that time.

'Actualize' is my term, not Spinoza's. It is my substitute for his 'expresses' [*exprimere*]. I prefer 'actualize' because I think it better conveys his view to contemporary readers. Many contemporary readers will naturally take 'expresses' to be a relation between a linguistic entity and its meaning, and that's not what I think Spinoza has in mind. I also prefer 'actualize' because of the connection to the 'activity' in 'patterns of activity'.

Why think that Spinoza is using 'expresses' [*exprimere*] to mean the same thing as my 'actualizes'? *Exprimere* is derived from *ex* (out) and *primere* (to press). Classically, it was often used in discussions of sculpture. For example, here's 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.[18]

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. In particular, I think he's saying that the mind and the body are two ways of *actualizing* the same essence, and thus of actualizing the same thing. They are *two ways* of actualizing it because they actualize it in different attributes; the mind actualizes it in the attribute of thought, while the body actualizes it 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 ways of actualizing the same thing.

This way of talking doesn't add anything to Spinoza's metaphysics. Saying that the mind and the body are *two ways* of actualizing the same thing is just to describe the properties that thing instantiates in each attribute. Metaphysically, there's just the thing, its properties in each attribute, and the attributes themselves. Spinoza is not claiming, paradoxically, that the mind and the body are both one thing and two different things.

I think the analogy between times and attributes is again helpful. Morning Peter and Night Peter are two ways of actualizing the same essence, and thus of actualizing the same thing. They are *two ways* of actualizing it because they actualize it at different times; Morning Peter actualizes it relative to the morning, and Night Peter actualizes it relative to the night. There's an important further question about what makes the times numerically distinct.

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

[17] See entries 6c and 6d under '*exprimō*' in the *Oxford Latin Dictionary*, 2012.

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

But, given that the times are numerically distinct, there's no problem saying that Morning Peter and Night Peter are two ways of actualizing Peter. This way of talking also doesn't add anything to one's metaphysics; it's just to describe the properties that thing instantiates at each time. Metaphysically, there's just the thing, its properties at each time, and the times themselves. If one claims that people exist wholly at different times, one can still talk about the different *ways* a person exists at each time, without thereby adding to one's metaphysics, because this is just a way of talking about the properties that person instantiates at each time. (In the jargon: one can be an endurantist and an eternalist and still talk about the different ways that a person exists at different times, without thereby adding instantaneous objects to one's metaphysics.)

Stepping back, I think that Spinoza's use of 'express' reflects the influence of those who, following Plato, think about finite things as actualizing a higher, unchanging realm of essences. There's a lot to say about this tradition and its influence on Spinoza, but we'll have to leave that discussion for another occasion.

6 To Constitute

Spinoza also describes things 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?

If we take '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 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. I think he means that, insofar as a man is a thinking thing, his essence is actualized by ideas, and insofar as he is an extended thing, his essence is actualized by bodies. In this sense of 'constitutes', one might say that, insofar as a statue is a marble thing, it is constituted by marble chunks, and insofar as it could be a clay thing, it could be constituted by clay chunks. This is what Spinoza

seems to mean by 'constitutes' 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). In other words, a man's essence is actualized by different emotions at different times. This interpretation of 'constitutes' is further supported by the way he interchanges 'constitutes' and 'expresses' (1P20D, compare 1D4 and 1D6). Given that both terms were originally used to describe a statue's relation to its matter, it's perhaps unsurprising that he uses them in similar ways.[19]

Assuming I'm right, what is the relation between 'constitutes' and 'expresses'? An essence is constituted when all aspects of that essence are expressed. Thus, Peter's body and other finite things express God's essence, but do not constitute God's essence, because they express only some of God's essence, such as God's infinite power. A rough geometrical analogy might help: an equilateral triangle expresses a plane, but does not constitute it, because it gives a determinate shape to only part of the plane. In contrast, Peter's body and other finite bodies constitute their own essences, because each expresses all of the aspects of its essence, in part by having all of the dispositions specified by its essence. A rough geometrical analogy might again help: a particular equilateral triangle constitutes the essence of triangularity, because it gives determinate dimensions (e.g., sides, angles) to all of the essential aspects of being a triangle.

There are two important ramifications of this analysis of 'constitutes'. First, Spinoza defines an attribute as what *constitutes* the essence of a substance (1D4). As I'm suggesting we interpret Spinoza, this means that the attributes are complete but different ways of actualizing God's essence. More exactly, God's essence is undifferentiated power (1P34), and this power is completely actualized as a power of thinking, as a power of moving, and so on. God's relations to his attributes are thus like Peter's relations to Peter's body and Peter's mind, in that the extended substance is identical to the thinking substance. This is an important ramification, but unfortunately too expansive to discuss here.

Second, our analysis of 'constitutes' helps clarify Spinoza's definition of 'essence':

[19]Descartes says that a principle 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 principle attribute is related to its substance. For proposals, see Pasnau 2011, Ch 8, and Garber 2012.

> 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; or that without which the thing can neither be nor be conceived, and which can neither be nor be conceived without the thing. (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, it belongs to the essence of x to be F iff (i) constituting x thereby constitutes something F, and (ii) constituting something F thereby constitutes x. This coheres with our interpretation, because constituting Peter, whether as Peter's body or as Peter's mind, thereby constitutes something with his pattern of activity, and constituting something with his pattern of activity, whether as Peter's body or as Peter's mind, thereby constitutes Peter. Likewise, 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, and when we conceive of something with his pattern of activity, whether as Peter's body or as Peter's mind, we thereby conceive of Peter.[20]

7 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)

[20] I think this also helps make sense of 2P10D and 2P37D.

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 heartbeat at the start of the race. Just as computer programs are built out of subprograms, so also Peter's pattern of activity is built out of subpatterns of activity that indicate how each of its modes will change over time in response to new conditions. The subpattern in charge of Peter's heartbeat specifies how it will respond to new conditions by specifying whether it will increase or decrease, what internal processes will generate that behavior, and any changes that might impact its future responses. This is the essence of Peter's heartbeat. Due to Spinoza's causal parallelism, the corresponding mode of Peter's mind will be governed by the same pattern of activity; as Peter's heartbeat increases, a corresponding idea in Peter's mind will think faster, and so on. In that case, despite discernible differences, Peter's motion and Peter's thinking are numerically identical.

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 materia 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.

Relatedly, we need to use a certain kind of logic when talking about Spinoza's view. For example, Spinoza's view allows us to truly say, "Peter's body moved at 8am and Peter's mind did not move at 8am." Because Peter's body and Peter's mind are numerically identical, many logics would allow us to conclude, "There is something that moved at 8am and did not move at 8am." And in many logics this is contradiction. But, for Spinoza, this conclusion is ambiguous, because it doesn't specify the relevant attributes. Disambiguated in one way, it's just the true and logically consistent claim, "There is something that moved at 8am, insofar as it's an extended thing, and that did not move at 8am, insofar as it's a thinking thing." Spinoza's

view thus requires a logic in which we cannot always substitute names that refer to the same thing, and we cannot always introduce an existential quantifier by replacing those names with the same variable. In a suitable logic, we can substitute names, etc., only if they refer to the same thing in the same attribute. Fortunately, there are already many logics with this type of structure, including certain modal logics, temporal logics, and intensional logics. In these logics, there are operators that allow us to restrict claims to a possibility, time, or intension, and inference rules like existential introduction take into account these operators (see Garson 2016). It wouldn't take much to repurpose these logics to accommodate Spinoza's view. Because these logics are demonstrably consistent, this should also reassure us that we can't derive contradictions from Spinoza's view, and that it is therefore consistent with the Principle of Non-Contradiction.

8 Immediate Context

I haven't yet addressed the context in which Spinoza first claims that a body and its mind are one and the same thing. Here's the proposition, demonstration, and corollary leading up to that claim:

> Proposition 7: The order and connection of ideas is the same as the order and connection of things.
>
> Demonstration: This is clear from 1A4. For the idea of each thing caused depends on the knowledge of which it is the effect.
>
> Corollary: From this it follows that God's [NS: actual] power of thinking is equal to his power of acting. I.e., whatever follows formally from God's infinite nature follows objectively in God from his idea in the same order and with the same connection.
>
> Scholium: Before we proceed further, we must recall here what we showed [NS: in the first part], viz., that whatever can be perceived by an infinite intellect as constituting the essence of substance pertains to one substance only, and consequently that the thinking substance and the extended substance are one and the same substance, which is now comprehended under this attribute,

> now under that. So also a mode of extension and the idea of that mode are one and the same thing, but expressed in two ways... .

A mode of extension is a *body* (by 2D1). The idea of that body is its *mind* (by 2P13). Therefore, Spinoza is claiming that a body and its mind are one and the same.

I believe that our interpretation coheres with this passage *better* than any of the other interpretations. However, I won't argue for this stronger conclusion here, because it would take too long to compare what each interpretation has to say about each aspect of this passage. I'll instead hope that by this point you're convinced that there is sufficient motivation for our interpretation, allowing me to focus on showing that our interpretation coheres with this passage, without addressing other interpretations.

So, how well does our interpretation cohere with this passage?

To start, our interpretation explains why Spinoza waits until this scholium to claim that a body and its mind are numerically identical. 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.

Next, our interpretation 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). He also argued that their 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 they share the same power, or activity. 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, in particular

the same pattern of activity. Thus, Spinoza wants us to "recall here what we showed in the first part" because he's giving a parallel argument for the identity of a body and its mind.

There might be another reason why Spinoza begins the scholium by asking us to "recall here what we showed in the first part." From the claim that God's essence is his power (1P34), he infers that "whatever exists expresses in a certain and determinate way the power of God" (1P36D). In other words, finite things actualize God's power (see also 1P25). It's thus natural to expect their essences to be ways of actualizing God's power, i.e., patterns of activity.

Finally, our interpretation explains why he says that the mind and the body are "one and the same thing, but expressed in two ways." He says that they are "one and the same thing" because they're identical, in virtue of sharing the same essence. He says that they're "expressed in two ways" because the mind expresses that essence with thoughts, and thus in the attribute of thought, while the body expresses that essence with motions, and thus in the attribute of extension.

9 Objections

There are three objections that I suspect have convinced others that this kind of interpretation is unworkable. In this section I'll respond to all three objections, often drawing on conclusions established in my other papers. None of my responses will be decisive. My goal is merely to show that these objections can be resisted.

The first objection involves a claim that isn't explicitly in the text, but that many attribute to Spinoza:

> CONCEPTION → CAUSATION
> If x is conceived through y, then y is a cause of x.

CONCEPTION → CAUSATION is apparently inconsistent with my interpretation. Here's why: According to Spinoza, we conceive of a thing through its essence (2D2). Thus, iff Peter's mind and Peter's body share the same essence, we conceive of them through the same essence. CONCEPTION → CAUSATION would then establish that the mind and body share a cause. However, Spinoza seems to insist that the causes of bodies are only other

bodies, and the causes of minds are only other minds, in which case they can't share the same cause (2P6, 3P2).

One might question whether there's really an inconsistency with CONCEPTION → CAUSATION. In the relevant passages, Spinoza seems most intent on establishing that bodies aren't caused by anything belonging to another attribute, and that wouldn't be the case if it didn't belong to any of the attributes (if it were "attribute-neutral"). Thus, it's at least debatable whether my interpretation is really inconsistent with CONCEPTION → CAUSATION.

But I think there's a better response. In other work I argue that Spinoza isn't really committed to CONCEPTION → CAUSATION (see my 2013). Spinoza is often thought to rely on this claim in his demonstration of 1P25. But I argue that he's relying on another claim. And insofar as we've now motivated an interpretation incompatible with CONCEPTION → CAUSATION, we have another reason to think that he's not relying on CONCEPTION → CAUSATION in his demonstration of 1P25.

The second objection is about the ontological status of essences. In a nutshell, the objection is that essences must be modes, and thus must be modes of extension, modes of thought, or modes of some other attribute (see 1P25C). But I'm claiming that essences are attribute-neutral.

I deny that essences are modes. The central issue is Spinoza's first axiom, 1A1, which reads:

> Everything is in itself or another.
> *Omnia quae sunt vel in se vel in alio sunt.*

Given his definitions of mode and substance, this seems to imply that everything is a mode or a substance. And that's exactly what he infers from this axiom (e.g., 1P4D). Many quite reasonably take this to establish that essences must be modes. But note that this axiom could also be translated:

> All beings are in themselves or in another.

I deny that essences are *beings*. If they are not beings, they fall outside the scope of this axiom. From a contemporary point of view, this might sound strange, because we're inclined to agree with Quine (1948) that, if something plays a role in our preferred theory, we're ontologically committed to it. Since essences play an important role in Spinoza's preferred theory, he might seem to be ontologically committed to them, and thus to treating them as

beings. But I think this again shows that Spinoza is working in a medieval tradition. Consider Aquinas. He would deny that Peter's substantial form is a being, at least while Peter is still alive. He writes that "the act of being of a composite substance is neither of the form alone, nor of matter alone, but of the composite itself"(*De Ente et Essentia*, Ch 2, Trans. Klima in Klima et al. 2007, p.230). According to Aquinas, Peter's substantial form (i.e., his rational soul) is not a being, and is thus neither a substance nor a mode. More generally, it does not fall within any of the traditional categories of being inherited from Aristotle's *Categories*. But substantial forms still play an important role in Aquinas's metaphysics. In fact, they play much the same role as essences in Spinoza's metaphysics. In particular, substantial forms are responsible for a thing's motions, they indicate its ideal state, and they're responsible for its identity across times. Spinoza seems to be signaling this similarity by describing essences as "*formal* essences" and by using 'form' interchangeably with 'essence' (see again 2P10, 2PhysL4&L6, 2P33D, 4Pref).[21] Perhaps essences are also like substantial forms in that they aren't categorized as beings.

There's a great deal more to say about my claim that essences aren't beings. There's also a lot more to say about my claim that essences are attribute-neutral. For example, because we can have adequate ideas of formal essences (2P40S2), it implies that we can adequately conceive of essences without conceiving of them under any specific attribute. More needs to be said about this implication. There are also interesting and important questions about how we're able to adequately conceive of essences, especially given Spinoza's hostility towards abstraction (e.g., 2P40S1). But we'll have to set all these questions aside for another occasion.

The third objection is that, if essences are patterns of activity, there's nothing to prevent the same pattern of activity from being actualized at discontinuous times, such as in 500 BC and then later in 1600 AD but at no moments in between. There's also nothing to prevent the same pattern of activity from being simultaneously actualized at discontinuous locations, such as simultaneously in Norway and in Australia but at no locations in between. Even if there are some things that can exist at discontinuous locations and times (e.g., the Norwegian army), there are many other bodies that presumably can't, including human bodies. Thus, the objection concludes, the

[21]See Viljanen 2011, Ch 2–3 for helpful and extended discussions of the similarities between Spinoza's formal essences and the scholastics' substantial forms.

essences of these bodies can't be patterns of activity. This objection might seem especially pressing given our earlier comparison between patterns of motion and computer programs, because the same program can be run by many different computers.

This objection isn't specific to our interpretation. Suppose with most scholars that essences are attribute-specific, so that the essence of a body is a pattern of motion, and the essence of a mind is a pattern of thinking. Why can't bodies at discontinuous times or discontinuous locations share the same pattern of motion? And why can't their minds share the same pattern of thinking? Spinoza never answers these questions, forcing us to speculate on his behalf.

There are at least two plausible answers. First, perhaps Peter's pattern of activity indicates his causes as well as his effects, thereby indicating where he belongs in the causal ordering of the entire universe. For example, perhaps Peter's pattern of activity indicates its parents, children, and other causes and effects, thereby differentiating him from any body with the same pattern of internal motions, but different parents, children, or other causes and effects. We might think of Peter's pattern of activity as like a computer program that specifies who will input the first value, who will input the second value, and so on. In that case, nothing else can have the same pattern of activity.

Second, perhaps God's essence cannot produce another person with the same pattern of activity, because God would thereby produce a contradiction, and God can't produce contradictions. Suppose that God's essence produced another person with the same pattern of activity as Peter, but a thousand years in the future or a thousand miles away. Because Peter's body would share the same essence as this other body, they'd be identical. But Peter's essence presumably excludes the possibility that it exists at discontinuous times or discontinuous locations. In that case, the essence of Peter would imply that it's not identical to the other body. Thus, God's essence would have produced a contradiction, which obviously can't happen. It seems to follow that, no matter how similar another body or mind might seem, there must be an underlying difference in its internal pattern of activity, even for the simplest bodies and minds (see 2PhysL1, 2PhysA2″).[22]

I'm inclined to think that Spinoza would give the second answer. A disadvantage of the first answer is that if it were essential to Peter to have

[22]Garrett (1994, p.80–81) won't think this is Spinoza's answer, because, according to Garrett, the simplest bodies are completely homogenous.

certain causes and effects, we couldn't even *think* about counterfactuals in which he has different causes and effects. An advantage of the second answer is that it would also help solve one of the deepest puzzles about Spinoza's metaphysics, which is how something as simple as God's essence could produce such a diverse world, rather than, for example, a world of homogenous 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.[23]

Fortunately, we don't need to decide here what answer Spinoza would give. It's enough that he could give an answer.

There are other objections, but I think these are the most pressing.

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.

Spinoza's view might also be of contemporary interest. As already noted, many now assume that the link between identity and indiscernibility is definitional. Lewis doesn't even think there are substantive questions about identity, writing, "Identity is utterly simple and unproblematic. Everything is identical to itself; nothing is ever identical to anything else except itself"(1986, p.192). But it's perhaps time to reconsider, especially now that many are once again comfortable talking about essences, and thus might once again be comfortable linking identity to essence, rather than to indiscernibility. This could have widespread implications throughout metaphysics. For example, it could open up new theories about properties and their instanti-

[23]For background on this tradition, see Mercer 2001, p.180–184. There are two other reasons to think that Spinoza is working in this tradition. First, he says that "the whole of nature is one individual, whose parts, that is, all bodies, vary in infinite ways"(2PhyS). Second, 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's essence gives rise to a world of maximal diversity.

ations, because there wouldn't be the same pressure to relativize properties to times (unlike Mellor 1998, Ch 8), or to treat instantiation as time-indexed (unlike Johnston 1987). More generally, it could open up new responses to the puzzle about identity across times as well as other puzzles involving identity.

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 both kinds of properties? Insofar as these are fundamentally different kinds of properties, the suggestion that we instantiate both can seem as objectionable as the claim that the same thing instantiates both material properties (e.g., *is 10kg*) and mathematical properties (e.g., *is a prime number*). In my opinion (and see also Schneider 2012, 2013), 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 an abstract structure that is actualized simultaneously by a person's material properties and mental properties. Property dualists needn't agree with Spinoza that it's a *causal* structure, a claim that seems to require both panpsychism and causal parallelism because the mental properties would need to be as causally efficacious as the the material properties. As an alternative, property dualists could say that it's a temporal and counterfactual structure that reflects the systematic co-variation of neural and phenomenal properties, and the way these properties change together over time in response to the environment. It would help property dualists considerably if, like Spinoza, they could also maintain that this structure is responsible for a person's identity across times, because it would then be more plausible that they're describing that person's essence. Even better if they could maintain that this structure is responsible for a person's identity across possible worlds, so that it's Humphrey who won the election in another possible world because the person who won the election in that world had the same structure. The resulting view would allow property dualists to agree that the differences between material and mental properties are so fundamental

that they must be instantiated by discernibly different things, namely the mind and body, while also allowing them to insist that material and mental properties are instantiated by the same thing, because the mind and body share the same essential structure. 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.

In these ways, 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.

Abbreviations

TIE	*Treatise on the Emendation of the Intellect*
KV	*Short Treatise on God, Man, and His Well-Bring*
CM	*Appendix Concerning Metaphysical Thoughts*

Except when noted, all translations are from Curley in Spinoza 1985.

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