

A Spinozist Approach to the Conceptual Gap in Consciousness Studies

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This essay argues that Spinoza's metaphysics offers a theoretical framework for dissolving the conceptual gap in contemporary consciousness studies. The conceptual origins of the gap have their roots in Cartesian substance dualism. If phenomenal experience is conceived as substantially distinct from correlated physical processes in the brain, an explanatory gap opens in our understanding of the mind/body relation. Spinoza's metaphysics offers an ontology that preserves the qualitative difference between phenomenal experience and physiological processes while conceiving the ultimate numerical unity of mind and its correlated physical processes. The notion of qualitative difference within substantial unity is deduced from Spinoza's redefinition of the basic features of the Cartesian universe: substance, attribute, and mode. Redefinition results in a property dualism that is internally consistent and dissolves the conceptual gap in contemporary consciousness studies. This paper identifies and explains the central argument for qualitative distinction within substantial unity and recommends a framework for consciousness studies that views phenomenology and neuroscience as complementary disciplines.

The problem of accounting for phenomenal experience in a physicalist or functionalist paradigm is now commonly referred to as the conceptual gap in consciousness studies. The "hard problem," argues Chalmers (1995), is the theoretical impasse in understanding how the intrinsic quality of phenomenal experience arises from physical processes in the brain. This paper suggests that the conceptual gap can be dissolved by accepting as axiomatic the intuition that phenomenal experience is qualitatively distinct from mathematical-physical objects and integrating this intuition into a substance monism.

The key question for both the seventeenth century mind/body problem and the contemporary conceptual gap is essentially the same, though the

idioms have changed. What is the correct manner of conceiving the ontological relationship between what, at a first approximation, appear to be two qualitatively distinct sorts of being, thought (in particular, phenomenal experience) and extension (in particular, physical processes in the brain).

The contemporary physicalist answer to this question gives ontological priority to physical processes as the basis of mental processes. The last fifty years of neuroscience research does indeed provide ample empirical evidence of correlation, but no more, between patterns of activation in the brain and mental states. Moreover, attempts to conceive of the precise mechanism of causality between the physical and mental have arguably not met with any success. This failure to conceptualize a causal bridge between the mental and physical has led to a variety of eliminativist positions which cross the explanatory gap by doing away with one side of the gap, namely, the phenomenal experience. Eliminativism is an untenable approach to consciousness studies because phenomenal experience remains just as much a part of the furniture of the universe as physical objects and therefore continues to call for explanation. Spinoza provides an explanation for the existence of phenomenal experience that is not founded upon any causal relationship between physical processes and mental processes.

For Spinoza, there is indeed a relationship between event A (a physical process in the brain) and event B (a mental state), but it is not causal and cannot be causal. Spinoza argues that there are ontological relations that are more immediate and intimate than causal ones and the relation between mind and brain is just such a relation.

The physicalists and functionalists have been looking in all the wrong places for the key to the mind/body relation. It lay neither in the priority of the physical nor in reducing the mental to functions implemented in a brain. This relation turns out to be a species of identity: event A and event B are both the numerically same event expressed in different ways. The mental event B is the immediate reflection of the physical event A. Event B is the interior side of event A. The state of event B (which is a mental state) can only be causally related to an antecedent state of the mind C that contains the sufficient conditions for the production of event B, and this antecedent state C will itself also be the interior side of a physical event.¹ How does Spinoza theoretically justify these types of claims?

Here I propose to set out the bare theoretical outline of Spinoza's account of how events such as A and B are not causally related, yet are necessarily correlated. At the same time, I will argue that Spinoza makes the link

¹By interior, I do not mean spatially interior, but rather the non-positional idea of a physical event. Non-positional means literally not located in space.

between mind and body intelligible without resorting to eliminativism or mysterianism (see McGinn, 1991, for a mysterian perspective).

I will begin by summarizing those aspects of Spinoza's critique of the Cartesian notions of substance and attribute that are directly relevant to the conceptual gap problem. I argue that Spinoza's non-Cartesian understanding of the substance/attribute relation lays the metaphysical groundwork for dissolving the conceptual gap. In particular, Spinoza's redefinition of attribute as a constituent of substance rather than as an indication of a distinct substance theoretically eliminates substance dualism and its derivative mind/body problem. This redefinition, however, also raises a new question. How can one substance consist of really distinct attributes? And what becomes of the real distinction between mind and body in a substance monism?

I will answer these questions by interpreting Spinoza's metaphysics as a form of expressionism along the lines suggested by Deleuze (1968/1990). Expressionism explains how two (or possibly more) qualitatively distinct expressions of being (the attributes of thought and extension) can express the numerically same being (substance). This numerically same being is arguably a universe of functional unities, the nature of which is attribute-neutral.

The Spinozist notion of functional unity and qualitative difference is radically different from contemporary computational functionalism. The latter theoretical framework tends to eliminate or pass over phenomenal experience. Spinozism puts the flesh back on the bones of functionalism by accounting for how one functional unity may express itself in qualitatively distinct ways. This expressionism has immediate consequences for Spinoza's theory of knowledge.

Finally, I will apply Spinoza's expressionism to his theory of knowledge, in particular to the theory of mental representation. It is in Spinoza's theory of representation that the epistemic implications of expressionism are employed to both dissolve the conceptual gap in consciousness studies and account for human knowledge. Far from opening a new conceptual gap, I suggest that Spinoza's metaphysics provides theoretical justification for a unified theory of the mind.

Spinoza's Critique of the Cartesian Notions of Substance and Attribute

Spinoza defines God as "a being absolutely infinite, i.e., a substance consisting of an infinity of attributes, of which each one expresses an eternal and infinite essence" (E ID6).² This definition of God (or Substance) marks a

²All references to Spinoza's works, with the exception of the correspondence, are from the Curley (1985) edition. I adopt Curley's way of referring to Spinoza's text, using the following abbreviations: E=Ethics; KV=the Short Treatise; TdE=the Treatise on the Emendation of the

radical break with Cartesian metaphysics. For Descartes, a substance is known by its principle attribute. Thus we know extended substance through our representation of the general features of physical objects in space. And we know thought through the immediate awareness of our own thinking. Real distinction between attributes on the Cartesian view, however, is not merely conceptual; it indicates that there are numerically distinct substances. This raises an urgent question for Spinoza, who inherited the Cartesian framework, yet was committed to formulating a substance monism. How can two attributes, which may be conceived as really distinct, belong to one substance? Again, for Descartes, the notion that two attributes indicate one substance is contradictory:

It is a conceptual contradiction to suppose that two things which we clearly perceive as different should become one and the same (that is intrinsically one and the same, as opposed to by combination); this is no less a contradiction than to suppose that two things which are in no way distinct should be separated. (1642/1985b, p. 299)

In the *Ethics*, Spinoza directly addresses this issue:

Although two attributes may be conceived to be really distinct (i.e., one may be conceived without the aid of the other), we still can not infer from that that they constitute two beings, or two different substances. For it is of the nature of substance that each of its attributes is conceived through itself, since all the attributes it has have always been in it together, and one could not be produced by another, but each expresses the reality, or being of substance. (E IP10s)

This scholium is based, in part, on the principle of plenitude. Spinoza argues that the more being an entity has, the more attributes or qualitative expressions that can be attributed to it. Based on this principle, the absolutely infinite being contains all expressions of being, that is, all attributes and all of the finite expressions of the attributes (E IP10s; KV, pp. 69–70; Ep. 9, pp. 92–93).

One might object that the universe may, by definition, include everything there is (with Spinoza) and physical processes in the brain may nevertheless be substantially distinct from phenomenal experience (against Spinoza). I believe this objection is unassailable. But it does not constitute a refutation of Spinoza's expressionism. It only demonstrates that one of the presuppositions of Spinozism is not necessarily true and therefore the argument of the

Intellect; I, II, III, etc., refer to parts of the work cited; A=axiom; P=proposition; D (following a roman numeral)=definition; 1,2,3, etc., refer to axioms, definitions, propositions, etc.; c=corollary; s=scholium; L=lemma; Dem=demonstration; p and pp refer to Curley edition pagination; Pref=preface. All references to Spinoza's correspondence are from the Shirley (1995) edition and are abbreviated as Ep.=correspondence, followed by the correspondence number and page number.

Ethics is not necessarily true. One might also object to the principle of plenitude and argue that everything there is may consist of only one or two attributes, not an infinity of attributes. For example, there may very well be only two expressions of substance, extension and thought, though Spinoza himself seems to have believed there were more attributes that are unknown to human beings. In any case, these legitimate objections would not exclude Spinozist expressionism as a theory of mind because we are not interested here in those attributes of substance that cannot be known by human cognition. Moreover, we demand of a theory of mind that it be plausible, that it explain the facts, not that it be necessarily true.

For Spinoza, the attribute thought and the attribute extension (and any other attributes we may not know about) belong to the numerically same being, substance. Yet these attributes are qualitatively distinct.³ As Deleuze points out, "Spinoza's argument now becomes: attributes are really distinct; but real distinction is never numerical; so there is only one substance for all attributes" (1968/1990, p. 34). The manner in which we interpret the real qualitative distinction between the attributes has immediate epistemic consequences for our understanding of particular minds, bodies, and the relation between minds and bodies. It is to this concept of real distinction and its epistemic consequences that we now turn.

Spinoza believed only a radically new understanding of the concepts attribute, substance, and mode, could provide the ontological grounds for conceptualizing the union of mind and body. Spinoza's redefinition of the Cartesian substances in terms of attributes and modifications removes the independence of thought and extension while preserving their qualitative difference.

According to Spinoza's redefinition, everything in the universe is either conceived through itself and is the cause of itself (substance or God [E ID3]) or it is conceived through and is caused by external causes (modes or particulars [D5]) [see E IA1, A2, P25c]. Substance consists of infinite attributes, each of which expresses the infinite and eternal essence of substance (E IP11). Since part of this infinite and eternal essence is the property of being conceived through itself, each of the attributes is conceived through itself. This manner of conceiving the attributes has immediate implications for the conception of modes.

Spinoza argues that "from necessity of the divine nature there must follow infinitely many things in infinitely many modes (i.e., everything which can

³I follow the Deleuze (1968/1990) interpretation of attribute. On this reading of Spinoza, "substances as qualified are qualitatively, but not quantitatively, distinct — or to put it better, they are 'formally,' 'quidditatively,' and not 'ontologically' distinct" (p. 37). I am also indebted to Deleuze's related discussion of real distinction in *Descartes and Spinoza* (pp. 27–39).

fall under an infinite intellect)" [E IP16]. This infinite number of things which follow in infinite ways are the modifications, that is, the determinate expressions of substance.

The substance, attribute, mode ontology has immediate epistemic consequences. According to E IA4, "The knowledge of an effect depends on, and involves, the knowledge of its cause." What does this mean? Given a state of affairs in the physical world (or modes of the attribute extension) and the laws of physics, we can explain subsequent states of affairs in the physical world. And given a certain mental state (or mode of the attribute thought) and the laws of psychology, we ought to be able to explain a subsequent mental state. Mental processes do not cause physical processes nor vice versa: "The Body cannot determine the Mind to thinking, and the Mind cannot determine the body to motion, to rest, or to anything else (if there is anything else)" [E IIP2]. Since the explanation of anything depends on a knowledge of the cause of that thing (E IA4), and there is no causal link between mind and body, there is therefore no conceptual gap implied by any failure to understand a causal relation between mind and body. The Cartesian version of the conceptual gap is thus dissolved.⁴

If a state of my body does not cause nor explain a corresponding state of my mind or vice versa, there must be another source of explanation for the regular coincidental states of my mind and my body. And Spinoza provides just such an explanation: the relation between mind and body is much more immediate and closely connected than that of a causal relation.

Spinoza's Expressionism

What can be more immediate than a causal relation? Mind and body are both expressions of one and the same "order and connection of things." Spinoza is very clear about this identity: "The order and connection of ideas is the same as the order and connection of things. Dem.: This is clear from IA4. For the idea of each thing caused depends on the knowledge of the cause of which it is the effect" (E IIP7). In the scholium to the same proposition, Spinoza adds, "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 two ways" (IIP7s).

E IIP7 raises some important problems. If mind and body express one order and connection of things, how are we to conceive of the manner in which

⁴I am indebted to the discussion of the "explanatory barrier" between thought and extension in Della Rocca (1996).

each is nevertheless a set of qualitatively distinct finite determinations of its respective attribute? Again, the answer will elude us if we take the distinction between the attributes as numerical. As Deleuze points out, "attributes are mutually irreducible and really distinct; none is cause of another, or of anything whatever in another. Modes therefore involve the concept of their own attribute alone, and not that of any other" (1968/1990, p. 106). Spinoza argues that there are two (or possibly more) qualitatively distinct expressions of one and the same being. And this has immediate consequences for the conception of the modes of the attributes:

Hence, so long as things are considered as modes of thinking, we must explain the order of the whole of nature, *or* the connection of causes, through the attribute of Thought alone. And insofar as they are considered as modes of Extension, the order of the whole of nature must be explained through the attribute of Extension alone. I understand the same concerning the other attributes. (E IIP7s).

The mind and body are qualitatively distinct expressions of "one and the same thing" (IIP2s). Neither modal expression has any ontological priority over the other because no attribute has any more reality than another; each attribute expresses the infinite and eternal essence of substance (IP10; cf. Deleuze, 1968/1990, p. 109). We should not, on Spinozist grounds, even look for an inter-attribute explanation of anything!

The lack of an inter-attribute explanation of mental states is not a limitation of human reason. It is precisely the "explanatory barrier" (Della Rocca, 1996, p. 9) between the Spinozist attributes that points to the dissolution of the Cartesian and contemporary conceptual gap entailed by substance dualism and its hybrids. As Della Rocca points out, "it is in part *because* of the explanatory barrier (and *not* in spite of it) that Spinoza holds the numerical identity view" (p. 118).

We are now in a position to interpret the numerical identity of the qualitatively distinct attributes of thought and extension. This conception requires that we identify the "attribute-neutral" (Della Rocca, 1996, p. 36) features of reality that account for the same "order and connection," an order founded in the attributes and their derivative modes.

The attribute-neutral features of reality are, in Spinoza's words, the "order and connection of things." How are we to understand an "order and connection of things" which is the same across the attributes? Let us start on the side of bodies. Donagan (1988, p. 123) points out that Spinoza "proposed a functional view of what all composite finite bodies are, human bodies among them." The properties or functions of bodies are determined by the disposition of their parts. More specifically it is the structure of the moving parts of bodies that gives rise to their functions, including the functions of living organisms (see, e.g., E IIL1, L4, L7). The more complex a body, the more

ways that it can be affected without changing its basic nature, and the more it is capable of perceiving many things (E IIP13s; cf. Curley, 1988, pp. 76–77). The human body “is composed of a great many individuals of different natures, each of which is highly composite” (E II Postulate 1). There is a correspondence then, between the degree of complexity of the functional unity of bodies and the corresponding mental activities. Mental activities somehow express the same functional unity as is expressed in certain modifications of associated bodies (see KV, pp. 95–96).

Functional unity is clearly the critical attribute-neutral feature of extended modes (see Ep. 32, pp. 192–194).⁵ The same functional analysis we have seen in the case of the physical may be applied to the attribute of thought and its modifications. Just as the body is modified according to the laws of motions and rest, the soul is conceived as “acting according to certain laws, like a spiritual automaton” (TdIE, p. 37). Thought and extension are ultimately expressions of the same functional unity, the same lawful order and connection, the same causal nexus. Spinoza explains in E IIP2s:

The order, or connection, of things is one, whether nature is conceived under this attribute or that; hence the order of actions and passions of our Body is, by nature, at one with the order of actions and passions of the Mind.

The question remains: How are we to conceive of this order and connection in itself, apart from its expressions? After all, psychological laws are not physical laws and we do not yet have a neutral functionalist language for describing what goes on in both phenomenal experience and its associated physical processes. Are we to conceive of the attribute-neutral features of reality as somehow transcending the attributal expressions, reducing those expressions to emanations of the one ultimate system of functional unity? This would not be Spinozist, since the attributes do not emanate from but constitute substance (see Deleuze, 1968/1990, pp. 180–182). I do not believe we can conceive of the order and connection of the dual expressions of substance in complete abstraction from those expressions.

We simply cannot completely abstract functional unity from its expressions. For abstraction, which is inescapably a mode of thought, is always an expression of thinking. Della Rocca suggests that (for Spinoza) we can, however, compare functional unities across attributes and discover a one to one correspondence of events and processes, cause for cause, and effect for effect

⁵Della Rocca (1996) identifies at least four attribute-neutral (or extensional) features of reality: numbers of causes and effects (p. 133); temporal properties (pp. 133–134); degree of excellence of reality (p. 21); property of being a complex individual (pp. 32–36, 134). For my purposes, I focus on the property of being a complex individual.

(1996, p. 133). It is empirically possible to discover the one to one correspondences, for example, between certain physical processes in the brain which represent the modified body, and certain ideas in the mind which represent that same body. Is not this what cognitive science is already doing? Yes indeed. Spinozism, however, provides a theoretical framework for unifying the data of neuroscience and phenomenology rather than reducing the latter to the former. In order to enter into Spinoza's theoretical framework we need to represent to ourselves at least two expressions of substance, thought and extension.

In order to comprehend an analogous order and connection between two qualitatively distinct orders of modes (the one under thought and the other under extension), we need knowledge of both expressions of substance. This means that the mind, which is the vehicle of knowledge, must represent to itself the basic features of thought as well as the basic features of extension. How does Spinoza account for the mental representation of both mental and physical objects?

Mental Representation and Represented Objects

To understand how Spinoza views representation, let us take an example from visual perception. My visual perception of the computer monitor is an idea (1) of an idea (2) of a modification of my body. The idea (1) is the conscious experience of having a visual perception. The idea (2) is the phenomenal representation of the monitor. Idea (2) is the immediate intentional object of idea (1).

The ideatum of idea (2) is not another idea, but it is the extended object itself, the extended correlate of the idea (2). This ideatum (extended mode), however, is not the intentional object of idea (2); the extended mode is not itself within the horizon of mind. The restriction on our access to the ideatum of the idea (2) is due to the real distinction between thought and extension. The extended object can only be known by means of the primary (observer-independent) qualities (see Ep. 6, p. 78) represented in the idea (2). This leads us to the very important Cartesian (and scholastic) distinction between the objective and formal reality of ideas (see, e.g., KV, pp. 61–62, 152–153).

Descartes distinguishes between the representational function of an idea (objective reality) and the idea as it exists in its own right (formal reality) [e.g., Descartes, 1641/1985a, pp. 28–29, 74–75; 1642/1985b, pp. 113–114; cf. Donagan, 1988, pp. 43–44]. For Spinoza, an idea has its own mode of being through those ideas that gave rise to it and continue to give the idea its contextual meaning (see Della Rocca, 1996, pp. 68–83 for a discussion of holism). This formal reality of the idea is derived from the attribute of

thought and that attribute alone (E IIP5). The idea (2) of our example has formal and objective being. This objective being is the idea's representational function. As a representation of an entity beyond itself, the idea (2) includes a correct description of certain features of an object that exist formally under the attribute of extension (see TdIE, pp. 17–18).

The objective reality of the idea (2) represents the primary qualities (or observer-independent qualities) of the extended computer monitor, such as its size and shape. Objective reality, however, does not add anything to the formal being of the idea (2). Nor does it suggest that the idea (2) is in some sense extra-mental. We do not have direct perceptual contact with external objects. We only have direct perceptual access to phenomenal representations of external objects.

Spinoza's version of the theory of the objective versus formal reality still requires theoretical justification. If knowledge is a form of thought, how does it come into cognitive relationship with extension; how does extension attain its purchase on objective reality? How do we know that idea (2) has objective reality if we cannot have direct perceptual contact with the extended mode, that is, if we cannot make the direct comparison of the idea (2) with the extended object (see Soffer, 1990, for a detailed discussion of this problem in early modern philosophy)?

Since the attributes of thought and extension are attributes of God, and the order and connection of extended modes are the same as the order and connection of mental modes, we may conclude that for each mode of extension, there is a functionally equivalent idea of that mode under the attribute thought. It is this human knowledge of God that assures us that some features of our ideas of physical objects (the primary qualities) have objective (representational) content. Only this is not the transcendent anthropomorphic God who cares about human beings. God, for Spinoza, is arguably everything there is, expressed as a system of functional unities which taken together form an ultimate functional unity: the universe.

Conclusion

The conceptual gap in contemporary consciousness studies, in a Spinozist world, is a pseudo-problem because it seeks to derive the formal reality of mental states from the formal reality of physical processes by means of reductive or causal strategies. These qualitatively distinct formal realities (thought and extension), however, are expressions of the numerically same functional unity. There is no gap to cross between formally distinct beings because such distinction is qualitative and not numerical.

For Spinoza, then, a person is a series of mental and physical expressions of the numerically same modal functional unity. What stands in need of expla-

nation are the attribute-neutral features of reality. On this view a unified science of mind would consist in identifying the regular correspondence between patterns of activation in the brain, human behaviors, and phenomenal experience. This regular correspondence between the data of phenomenology and neuroscience would indicate that the same order and connection of things, the same functional unity, is expressed in qualitatively different ways in the descriptions of human beings offered in both disciplines. Rather than reducing a phenomenal experience to a pattern of activation of neurons in the brain, a Spinozist would view both the pattern of activation and the phenomenal experience as two expressions of one series of modifications of substance. Thus mind and body are more intimately connected than entities that are causally related because mind and body are the same thing.

I am not suggesting that an attribute-neutral language be developed to bridge explanations in neuroscience with explanations in phenomenology. Spinozism does not lead in that direction because there is indeed an explanatory barrier between attributes, only this barrier is not due to any lack of knowledge, but to the basic features of the universe. A mode of one attribute (e.g., physical processes in the brain) does not cause anything to happen in a mode of another attribute (e.g., phenomenal experience). The bridge between neuroscience and phenomenology consists of the insight that explanations in each discipline (neuroscience and phenomenology) reveal the two faces of the one.

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