Wolff on Substance, Power, and Force

Nabeel Hamid

Journal of the History of Philosophy, Volume 62, Number 4, October 2024, pp. 615-638 (Article)

Published by Johns Hopkins University Press

Wolff on Substance, Power, and Force

NABEEL HAMID*

ABSTRACT This paper argues that Wolff's rejection of Leibnizian monads is rooted in a disagreement concerning the general notion of substance. Briefly, whereas Leibniz defines substance in terms of activity, Wolff retains a broadly scholastic and Cartesian conception of substance as that which per se subsists and sustains accidents. One consequence of this difference is that it leads Wolff to interpret Leibniz's concept of a constantly striving force as denoting a feature of substance separate from its static powers, and not as their replacement. For Wolff, powers are essential possibilities of acting in subjects suited for independent existence. Force is a further ingredient that provides a reason for the contingent operation of powers. Unlike Leibniz, Wolff conceives force narrowly as a principle of actuality, which he calls the "nature" of substance, as distinct from its principle of possibility, or essence.

KEYWORDS Leibniz, Wolff, monads, ontology, German Cartesianism, early modern scholasticism, dynamics, corporeal substance

1. INTRODUCTION

That Wolff distanced himself from Leibniz's monadology is well recognized as one of his most significant disagreements with his putative master. Writing late in life to Count Manteuffel, Wolff declared that his own philosophy ends where Leibniz's begins; the monads, in particular, remain to him "a riddle" (*ein Rätsel*) that he does not care to solve (May 11, 1746, *MW*II.159).[1] In his Latin treatises, *Philosophia prima sive Ontologia* (1730) and *Cosmologia generalis* (1731), Wolff pointedly declines to endorse Leibniz's doctrine. In the preface to the latter, he writes, "I leave to Leibniz his opinion about monads. . . . For it is the same to me whether someone makes Leibnizian monads the most important things, or condemns and rejects them."[2]

[1] I cite Wolff's texts from the Georg Olms edition of his *Gesammelte Werke* [*GW*, series and volume], with the exception of [*LW*] and [*MW*]. All translations are my own. Unless otherwise indicated, citations are by paragraph number. See the bibliography for the full list of abbreviations.

[2] Recent scholarship has effectively challenged the opinion of nineteenth-century German historiography—the tradition of Ueberweg, *Grundriss*, 167; Windelband, *Geschichte*, 496; and Zeller, *Geschichte*, 213—that Wolff was merely an unoriginal systematizer of Leibniz. Bissinger (*Struktur*, 24), Rey ("Dif-

* **Nabeel Hamid** is an associate professor of philosophy at Concordia University.

Scholars have highlighted the specter of idealism—understood as the thesis that reality is fundamentally composed of mind-like substances and mental contents—as a key reason behind Wolff's unease.[3] For Wolff, the threat arises from Leibniz's characterization of monads as centers of both physical force and perception, and of the world as resulting from their coordinated representations. In the third (1725) edition of the *German Metaphysics*, Wolff plainly states his misgivings about Leibniz's view that every simple substance represents the world.

> Leibniz is of the opinion that the entire world is represented in any simple thing, whereby it becomes intelligible how each one can be distinct from the others and relate to the entire world in a particular manner, and even how each relates to the things that are around it as well as those which are further away. However, I still have reservations about accepting this. (*DM* §598)[4]

Remarking on this passage in his commentary on the *German Metaphysics*, the *Anmerckungen über die vernünfftige Gedancken* (1724), Wolff explains that his doubts stem from the lack of any "demonstration" of Leibniz's position, so that there appears to be "no necessity why all simple things should have the same kind of force," namely, of representation. He adds, "I rather suspect that some force should be encountered in the elements of corporeal things from which the force of bodies as it is expressed in their changes of motion could be understood in an intelligible way" (*ADM* §215). Not only does Wolff find no good argument for the view that all simple substances are endowed with representational force, but he also does not find it to have explanatory value for physics. For Wolff, we should remain alive to the possibility of a distinct account of physical force, which would render bodily phenomena intelligible.

---

fusion et réception"), and Rutherford ("Idealism Declined") have exposed Wolff's differences from Leibniz on monadology. With respect to metaphilosophical commitments, École ("En quels sens"), Kreimendahl ("Empiristische Elemente"), and Leduc ("Role of Experience") have argued that Wolff's emphasis on experimentation and perceived fact as the foundation of philosophical knowledge defies his characterization as an arch-rationalist. Given the piecemeal character of Wolff's appropriation of Leibniz, Park ("Débat wolffien," 337) rightly concludes that his work is better seen as "the desystematization of Leibnizian thought."

[3]Effertz, "Zur Monade"; Look, "Simplicity of Substance"; Rey, "Diffusion et réception"; and Rutherford, "Idealism Declined." I do not wish to get entangled here in the nuances of Leibniz's idealism, nor is the topic directly relevant to the paper; for an insightful treatment, see Rutherford, "Leibniz as Idealist." It is worth remembering that Wolff is responsible for popularizing the label 'idealism' to name a certain philosophical position (Leibniz had previously used it to contrast Plato's position with Epicurus's materialism in his "Reply to Bayle," GP IV.560/L 578). In the preface to the second (1722) edition of *German Metaphysics*, Wolff contrasts the "skeptics" (*Scepticos/Zweiffeler*) with the "dogmatists" (*Dogmaticos/Lehrreicher*), and divides the latter into two types: "monists" (*Monisten*)—who only admit "one kind of thing"—and "dualists" (*Dualisten*)—who admit "two kinds [of things]." Among the former, he further identifies two camps, "idealists" (*Idealisten*) and "materialists" (*Materialisten*), and defines 'idealists' as those who "admit only spirits, or else such things that do not consist of matter" (preface to *DM*). Wolff then names "Leibnizian unities" as an example of such ideal entities and observes that idealists are compelled to posit a force that could account for all perceptions and appetites without any external influence because they "accord to corporeal things no other place than in the thoughts of the soul" (preface to *DM*). Wolff devises this taxonomy of views in service of his inquiry into the nature of the soul and its relation to the body, a question he thinks has a promising, but not sufficiently well-established, answer in Leibniz's preestablished harmony. The preface makes clear that his intent is to thread a middle path between the idealist and materialist camps, not to defend Leibnizian idealism or universal harmony against the materialists.

[4]The last sentence of this passage does not appear in the first two (1720 and 1722) editions.

Much of the scholarship that has drawn attention to Wolff's departure from Leibniz has approached the issue from the latter's standpoint. By contrast, this paper gives center stage to Wolff. I argue that Wolff's divergence rests in his concept of substance as a subject of inherence possessing essential powers to act or be acted upon. For Wolff, force is a separate, nonessential principle that belongs contingently to created substances and accounts for the actuality of their modes. Wolff's reception of Leibniz's concept of force is thus mixed. On the one hand, he praises Leibniz for having introduced in the doctrine of substance the notion of a constant striving toward, as distinct from a mere potentiality for, action. On the other hand, Wolff departs from his predecessor in retaining a scholastic concept of powers as static dispositions while assigning to force a restricted role based on observed effects. For Wolff, Leibniz's emphasis on primitive force as itself a modifiable and perduring thing—thus as synonymous with 'entelechy,' 'substantial form,' or 'monad'—obscures the distinction between an underlying subject and that by which it is modified. In Wolff's ontology, force, like matter, is not itself the substance of things but rather depends on substances.

The paper is structured as follows: Section 2 discusses Wolff's reception of Leibniz, using insights from recent Leibniz scholarship to understand the reasons for Wolff's ambivalence toward Leibniz's monadology. Section 3 turns to Wolff's theory of substance and shows that it excludes force. Section 4 examines Wolff's distinction between power (*potentia*) and force (*vis*): the latter, which he also calls "nature," is a nonessential principle that is ascribed to created substances to account for the modes produced through the operation of their necessary powers. Section 5 sketches how, with his treatment of substance, power, and force, Wolff aims to keep apart his accounts of corporeal and mental substance. I conclude by pointing to the significance of Wolff's metaphysics of substance for the eighteenth century.

A few caveats must be stated before we begin. First, while Leibniz's monadology provides contrast for my reading of Wolff, I should emphasize that Wolff never gives a definitive interpretation of Leibniz. He certainly refuses to follow Leibniz down the idealist path, but he nowhere offers a detailed reconstruction of his predecessor's position. I triangulate the Leibnizian view as Wolff may reasonably have understood it from (a) Wolff's own treatment of the topic; (b) his self-positioning among a range of earlier figures (a story in which Leibniz is not always central); and (c) recent Leibniz scholarship. Wolff's attitude toward Leibniz—whose support helped Wolff obtain his first academic post, and whom he defended publicly in the dispute with the Newtonians—is generally deferential, in their correspondence and elsewhere. He typically avoids direct criticism of his eminent compatriot, even when, from our vantage point, their views appear to be at odds. In a conciliatory spirit, he goes out of his way to downplay differences and casts his discussions as elaborations of Leibniz. Wolff's reluctance to oppose Leibniz thus makes extracting his considered assessment of Leibniz less than straightforward. What I resist, however, is the assumption that Leibniz serves either as the main target or inspiration for Wolff. On my view, Leibniz is, for Wolff, a source of certain insights into the nature of substance and activity, which Wolff takes on board in what remains a broadly scholastic and Cartesian approach to the topic.

Second, one goal of this paper is to articulate the difference between the two authors' accounts of substance with an eye to subsequent debates on the Continent. If Leibniz's influence on eighteenth-century philosophy is indeed indirect via its transformation in Wolff, as Cassirer observed, the differences between the two should be of some consequence for understanding, for instance, Baumgarten, Du Châtelet, and Kant.[5] Indeed, this must be so regardless of how Wolff may have understood his account in relation to Leibniz's, or whether he got Leibniz right. This requires that we approach Leibniz from Wolff's perspective rather than the other way around. My aim here is not to take sides, either by peddling the old chestnut of Wolff as having misunderstood Leibniz, or by turning the tables and defending Wolff's position as superior. An entrenched assumption in much Wolff reception has been that his ambition was simply to systematize Leibniz's thought and, consequently, that the success of his project could be measured by its fidelity to his predecessor's. Increasingly, this assumption has been rejected, and rightly so. As I see him, far from being a failed Leibnizian, Wolff belonged to a movement in German universities that aimed to renovate Aristotelian metaphysics with insights of Cartesian provenance. The so-called "*cartesianische Scholastik*," to borrow Josef Bohatec's label, originated with Johann Clauberg's efforts in the mid-seventeenth century to reform metaphysics by accommodating Descartes's theory of substance and his mechanist program in natural philosophy.[6] This movement was well represented in Jena in the circle of Erhard Weigel and his students, where Wolff studied. Clauberg especially remained a key source for Wolff's understanding of Descartes, as evidenced by the numerous references to him in Wolff's corpus. Leibniz appears in this picture as one source of new ideas among others. But he is not the figure responsible for the general tenor of Wolff's thought.[7]

Finally, a textual note: in my exposition, I focus on Wolff's later, Latin works rather than the earlier, German ones, for several reasons. For one thing, with respect to the issues central to this paper—that substance is a per se subsisting subject of accidents, and that power and force are distinct notions—the German and Latin writings are in agreement at the relevant level of generality; my choice of the latter is due both to their richer presentation and to their greater independence from Leibniz. For another, being intended for a pan-European audience, the later works frame Wolff's views in relation to a broader range of precursors, from Albert the Great and Suárez to Descartes and Clauberg. This feature of the Latin texts, as we shall see, puts us in a better position to appreciate Wolff's self-understanding of his project while also serving as evidence for the claim that in developing his system he treated Leibniz as one interlocutor among many. Where relevant, I refer to Wolff's German works to provide confirmation of the views I attribute to him.

---

[5]Cassirer, *Enlightenment*, 33–34.

[6]Bohatec, *Die cartesianische Scholastik*.

[7]See Arnsperger, *Wolffs Verhältnis zu Leibniz*, 7–19, for Wolff's early education in Breslau and Jena; and Dyck, *First Fifty Years*, chap. 1, for Wolff's intellectual formation prior to his encounter with Leibniz. I am in agreement with the opinion of Étienne Gilson concerning Wolff's overall tendency: "Wolff was keenly conscious of carrying on the work of the great Scholastics. What they had done was not perfect, but that was the thing to do, and, since it could be done better, Wolff himself was going to do it all over again" (*Being and Some Philosophers*, 114). Due to space constraints, I am unable to give a fuller defense of my interpretative approach to Wolff. For Clauberg's role in the formation of German Cartesianism, see Hamid, "Domesticating Descartes."

2. WOLFF ON LEIBNIZIAN SUBSTANCES

Wolff's assessment of Leibniz's theory of substance is ambivalent. From his initiation into monadology until the end of his life, he questioned the view that, like many readers of Leibniz since, he took to imply that mind-like beings alone populate the fundamental level of reality and that bodies are merely the intentional contents of perceptions. Wolff had solid textual grounds for this interpretation. In the course of their decade-long correspondence, Leibniz revealed to the young Wolff his thesis that simple substances ground the reality of bodies by representing them.

The disagreement between Wolff and Leibniz first arises in the context of physics, where Wolff finds monadology unsuitable as a metaphysics of body. Leibniz presents to him the theory of monads after having been pressed to explain the relation between change in physical force, such as the force acquired by a falling body as it accelerates, and what Leibniz calls "primitive force." He offers Wolff the following account:

> The modification of primitive force, which is in the monad itself, cannot be better explained than by explaining how derivative force is changed in phenomena. For what is exhibited extensively and mechanically [*extensive et mechanice*] in phenomena is [present in] monads concentratedly or vitally [*concentrate seu vitaliter*]. (July 9, 1711, *LW* 138–39)

Leibniz illustrates the relation between change at the mechanical/phenomenal level and the vital/monadic level by comparing the kinematical and dynamical representations of acceleration. Kinematically, he tells Wolff, a body's acceleration is conceived as a continuous series of percussions or impulses, "as if at any fixed interval of time it was struck by some sphere" (139). The percussion theory models accelerated (and decelerated) motion as a series of instantaneous finite impulses, such that in any interval of uniform motion, the velocity of the moving body is increased (or decreased) by a definite amount from the preceding interval. Geometrically, accelerated/decelerated motion is represented as a series of straight lines approximating a curve. Acceleration is thus conceived as a series of perfectly elastic collisions, each one increasing compression in the moving body and thereby the magnitude of the subsequent impulse.

The percussion theory of motion, however, does not indicate the cause of elastic force in bodies. For Leibniz, the source of dynamism cannot in principle be represented through this method because it is limited to modeling effects. He proposes to understand the relation between bodily phenomena and their causal ground in terms of how perceptual force relates to its effects, namely its intentional objects.

> But what is shown mechanically or extensively by the reaction of what resists and restoration of what is compressed, is dynamically and monadically concentrated in the entelechy itself . . . in which there is a representation of mechanical things and the source of the mechanism; for phenomena result from monads (which are the only true substances). And when mechanical things are determined by external circumstances, the primitive entelechy itself is harmoniously modified by that very source in itself. (139)

Commenting on this part of the correspondence, Donald Rutherford summarizes Leibniz's response to Wolff as consisting of the following theses: first, "when changes occur in the derivative force of bodies, those changes are grounded in the modifications of the primitive force of monads"; and second, "the modifications of primitive force are limited to perceptual states, which represent the physical states of bodies."[8] In effect, Leibniz responds to Wolff's request for an explanation of the relation between kinematical effects and their dynamical ground by moving to the plane of perceptual force and its objects. Tellingly, at this juncture Wolff politely brings this topic of conversation to a close, citing in his next letter the "different requirements for philosophizing correctly" in their respective methods (July 15, 1711; *LW* 142).

Throughout his career, Wolff avoids direct criticism of Leibniz. But it is abundantly clear both that he finds Leibniz's monadology dissatisfying and that he interprets it as leading to subjective or "dreaming" idealism. In *Ontologia*, he distinguishes his own concept of a simple being from Leibniz's: "But when we consider a simple being, we are not concerned with the monad of More or the monad of Leibniz" (§684). According to Wolff, the concept of monads has, unsurprisingly, led some (unnamed) proponents of "Leibnizian unities" to "take the world and the bodies found therein for mere imaginings [*blosse Einbildungen*] of simple things and to regard it as nothing other than a regular dream" (*DM*, preface to 1722 edition; see also §898).[9] In Wolff's view, the dreaming idealism conclusion results from conflating physical and psychological force, from conceiving monadic force univocally as representational. By denying any nonmental principle of activity, such an account is unable to regard change except as mental action.

Just as consistent as Wolff's refusal to endorse monadology, however, is his praise of Leibniz's emendation of the concept of substance. He frequently cites Leibniz's 1694 *Acta eruditorum* essay, "On the Correction of Metaphysics and the Concept of Substance," applauding him for having introduced the notion of active force as distinct from mere potency. Wolff embraces Leibniz's position that, on pain of stripping nature of intrinsic activity and leaving God as the sole agent, substances must be endowed with more than just possibilities of action; they must have an internal principle to actualize such possibilities. (I return to Wolff's reading of Leibniz's paper in section 4.)

Wolff's assessment of Leibniz's doctrine of substance can be summarized as follows: On the one hand, he accepts Leibniz's thesis that natural substances are

[8]Rutherford, "Idealism Declined," 223–24. Rutherford further draws attention to underlying methodological differences between Leibniz and Wolff. For Wolff, the foundation of knowledge is always what he calls "historical knowledge," or the knowledge of particular fact. Philosophical reason is restricted to working with such particulars, and asks how something that is empirically known to be the case is possible (*DP* §§3–10). For Wolff, all knowledge is thus knowledge of reasoned fact; there are no pure a priori synthetic truths. As we shall see, part of the story of why Wolff departs from Leibniz is his commitment to philosophical theorizing as a "marriage of reason and experience"—the phrase occurs at e.g. *DP* §12; *PE* §497; see Dyck, *Rational Psychology*, 19–42; and École, "En quels sens," 48–52.

[9]It is not always clear whether Wolff targets Leibniz himself or his followers in his critiques of idealism. In *Psychologia rationalis*, for instance, he contrasts Leibniz's account of monads as the elements of material things with one that mistakenly attributes to Leibniz the view that "matter is composed of spirits as a whole from parts," so that the constituents of matter would be apperceptive beings (*PR* §644n). For Wolff, in any case, it is inadmissible to identify nonapperceptive but still perceptive and appetitive monads with nonmental simple substances.

active. On the other hand, he deems Leibniz's view that all substances are active in virtue of representational force to be undermotivated by scientific interests or evidence—he insists on distinguishing physical from mental force. This much is well known to Wolff scholars. What I will argue in the remainder of the paper is that Wolff's rejection of a unitary notion of force is rooted in a deeper difference with Leibniz on the general concept of substance. Roughly, Wolff retains a traditional view of substance as a subject of inherence, whereas Leibniz, at least in his later period, defines substance as primitive force. On Wolff's account, there is a clear distinction between static essences that endow subjects with necessary powers and dynamical natures that actualize those powers. And his Cartesian commitment to two kinds of substantial essence entails separate kinds of force suited to each. By contrast, for the later Leibniz, to be a substance seems to be nothing other than to be a continuously striving force. As he puts it in "On Nature Itself," "The substance of things itself consists in the force of acting and being acted upon" (GP IV.508/L 502). In Leibniz, what the scholastics had catalogued as powers fitted to produce distinct species of action turn out to be mere patterns of modification of primitive forces. Primitive force replaces scholastic powers as a master principle that binds together manifold states in a law-governed manner. Leibniz sometimes identifies the nature of primitive force, and thus of simple substance itself, as its "law of the series," in accordance with which the successions of modifications produced by monadic activity are ordered (e.g. to Arnauld, 1690, GP II.136/L 360; to de Volder, GP II.258/L 533).[10] Against what might reasonably have appeared to Leibniz's early readers as a collapse of the notions of law, power, force, and substance, Wolff strives to keep these distinct by assigning distinct roles to each. By revising Leibniz's doctrine of force, he aims for an account of substance as a generic substratum that admits at least two species differentiated by their necessary powers.

Before turning to Wolff's account, it is worth noting that recent scholarship on Leibniz's concept of force has moved in a direction that Wolff may plausibly have found in him. Against readings of Leibniz as a substance-mode ontologist, commentators including Martha Bolton, John Whipple, Peter Myrdal, and (most fully) Julia Jorati attribute to Leibniz a picture on which to be a substance just is to be a unified active force.[11] Commenting on the *New Essays*, Bolton writes that, for Leibniz, "a substance is made up of nothing but forces/powers—active and passive, primary and derivative."[12] Jorati goes a step further to equate Leibnizian forces with substances: "monads do not have forces, strictly speaking—they are

[10]See Rutherford, "Laws and Powers," for discussion of Leibniz's concept of a law of the series and its relation to primitive force.

[11]Bolton, "Locke and Leibniz"; Jorati, "Leibniz's Ontology"; Myrdal, "Metaphysics of Powers"; and Whipple, "Simple Substances." Proponents of a substance-mode view in Leibniz's later period—the period relevant to Wolff—include Bobro and Clatterbaugh, "Unpacking the Monad"; and Garber, *Leibniz*, 314–21. On this account, primitive force is not fundamental to substancehood but, as Garber puts it in the context of the de Volder correspondence, it loses its previously foundational status and "gets folded into the perceptual life of non-extended perceiving things" (*Leibniz*, 319). I should emphasize that the literature on Leibniz's views on substance and force is vast, and my purpose here is not to defend one or another interpretation. I only wish to highlight one plausible reading—the force-first one—that provides a helpful contrast to Wolff.

[12]Bolton, "Locke and Leibniz," 118–19.

forces."[13] On her reading, monads are not substrata for qualities of which primitive force is the most fundamental. Monads are likewise not entities resulting from the unification of active and passive forces—on Jorati's view, Leibniz's primitive passive forces are simply privations or limitations of active forces.[14] At the ground-floor level of Leibnizian reality, then, there are only active forces, which, insofar as they are not further decomposable, are called monads or simple substances.[15]

Whether or not this was in fact Leibniz's considered view, there is good reason to think that Wolff was troubled by the centrality of primitive force in Leibniz. In his own metaphysics, Wolff treats force as a distinct principle that is excluded from the essence of substance. Force only enters the picture to account for the contingent actuality of modes, not to explain a substance's capacity to support accidents. For Wolff, subsistence-inherence, not activity-passivity, is the key feature of the category of substance.

3. WOLFF'S THEORY OF SUBSTANCE

Wolff defines substance as a "perdurable and modifiable subject" (*subjectum perdurabile et modificabile*) (*Ont.* §768). He further glosses substance as a "subject of fixed and variable intrinsic determinations" (*subjectum determinationum intrinsecarum constantium & variabilium*) (§769). He then argues at length (§§771–72) that his account of substance agrees with both the scholastic-Aristotelian and the Cartesian accounts, and criticizes the concept of substance as bare substratum, which he associates with Locke.[16] The crucial notion in Wolff's treatment of substance is that of a subject: a being capable in virtue of its essence of sustaining dependent beings. It excludes the notion of a force by which a substance is actually modified.[17]

---

[13]Jorati, "Leibniz's Ontology," 223.

[14]Jorati's thesis that primitive passive power is a mere privation or nonbeing draws on Antognazza, "Primary Matter."

[15]Rodriguez-Pereyra's reading of Leibniz's complete concept theory of substance in the *Discourse on Metaphysics* also lends indirect support to the force-first ontology interpretation (see "Leibniz on Substance"). On his account, while Leibniz's definition of substance as a being whose concept contains all its predicates can preserve a distinction between an individual substance and its universal accidents, it cannot sustain a distinction between an individual substance (say, Alexander) and its individual essence (the property of being Alexander), or what Leibniz calls its "substantial form." This is because Leibnizian substantial forms are not predicable of more than one individual. The substantial form of Alexander, in other words, is fully determinate for precisely one individual, and thus cannot be distinguished from the substance Alexander, unlike its accidents. Leibnizian substantial forms, in other words, are indistinguishable from the substances they describe. If we substitute for the substantial forms of the *Discourse* period the later notions of entelechy, monad, or primitive active force, we arrive at the same view of Leibnizian substances that Jorati finds in him: that to be a substance just is to be a unified primitive force.

[16]Insistence on the compatibility of his doctrines with scholastic-Aristotelianism and Cartesianism is a recurring feature of *Ontologia*. On key topics—essence, subject, substance, relation, and cause—Wolff references various representatives of Aristotelian positions, including Aquinas, Suárez, Dominic of Flanders, and Albert the Great, as well as Descartes and his key German representative, Clauberg (§§169, 712, 771–72, 865, 951). Notably infrequent in this effort to position himself among authorities are appeals to Leibniz, whose contributions to these topics he typically presents as corrections or refinements, rather than foundational.

[17]The German scholastic tradition beginning with Clemens Timpler (1563–1624) routinely distinguishes being (*ens*) and its general affections (e.g. essence, unity, truth, perfection, principle, cause) from substance. In its widest sense, being signifies "whatever can be thought or said," as Clauberg puts it (*ME* ii.6). *Ens* in this sense is merely thinkable being, or the formal object of thought. Restricting it

Wolff defines an ontological subject as "a being insofar as it is considered as having an essence and capable of other things besides it" (*ens, quatenus consideratur ut habens essentiam & praeter eam aliorum capax, dicitur Subjectum*); subject is opposed to adjunct, or what proceeds from essence, under which Wolff includes both attributes and modes (§711). He defines essence as a principle of possibility: "that which is first conceived in a being and in which is contained the sufficient reason why other things belong to it or could belong to it" (§168; see also §144). Essence confers upon a subject its capacity for attributes and modes. This capacity is not a brute feature but obtains in virtue of a structure of primitive predicates that Wolff calls "essentials" (*essentialia*) (§143). The key feature of this structure is that it is made up of predicates that are neither mutually repugnant nor mutually determined. For example, the predicates "triple number of sides" and "equal sides" comprise the essentials of an equilateral triangle. Together, they satisfy two conditions: first, they do not entail one another; and second, they are jointly sufficient to determine something as an equilateral triangle. By contrast, the predicates "equal sides" and "equal angles" do not constitute any essence, for they fail the condition of not being mutually entailing. To take another of Wolff's examples, the essence of virtue is constituted by "conformity of action with natural law" and "habit of the will." Again, the two are not mutually entailing, for it is possible for an action to conform to natural law without having been willed (§143n). An essence is constituted by a minimal set of predicates that determine what is and is not possible in a being.

From essentials follow attributes and modes. Wolff treats both as accidents, by which he means only that they have their reality through inherence in subjects—there is no place in his ontology for universals existing independently of subjects (§§779, 791). On Wolff's account, the difference between attributes and modes consists in their respective relations to essentials. Attributes are fully determined by essentials and are constant features of any being to which they belong. Wolff distinguishes proper (*proprium*) from common (*commune*) attributes: the former are determined by all the essentials taken together, whereas the latter are only determined by some (§145). For example, "triple number of angles" is a common attribute of equilateral triangles, inasmuch as it is shared by all triangles, whereas "triple number of equal angles" is a proper attribute of equilaterals (§146n). In either case, the attribute is thoroughly determined by one or more essentials. By contrast, modes are not determined by essentials, yet are not incompatible with them. A certain mode may or may not be present in a subject capable of having it. Thus, a triangle is divisible into two equal parts by a straight line drawn from a vertex to the base, but such a division is not produced by its essentials. Similarly, being heated is not repugnant to the essence of stone but also does not result from

to the narrower sense of 'something' (*aliquid*) yields a notion of being as positively knowable reality. *Aliquid* denotes those contents to which existence outside thought is not repugnant, in virtue of their expressing certain general conditions of truth-aptness, unity, perfection, and necessary connection to other contents (iii.19–20). Finally, substance (*ens reale*, or *Res*) is distinguished from beings and their general (or "transcendental") attributes as a concretely existing thing actually connected to others (iv.42). Wolffian ontology follows this tradition in distinguishing the conceptual features common to any possible substance from the contingent, fully determinate substances making up a world. For Clauberg's threefold notion of *ens*, see Carraud, "L'ontologie."

it. Being lighter than air, however, is ruled out by the essence of stone, insofar as the specific gravity of air is less than that of stone (§§147–48). For Wolff, essentials, attributes, and modes exhaust what can belong to a being: "Whatever is in a being has its place among essentials, or attributes, or modes" (§149).

Essence forms the core of Wolff's account of substance. Through its essence, every substance is constituted as a complete being. A Wolffian substance is complete inasmuch as it does not need unification with another in order to exist, as substantial form unites with matter on the hylomorphic theory; its existence depends only on God. Nor does its completeness amount to each of its predicates being contained in its concept, as on Leibniz's notion of a complete substance (GP IV.432–33/AG 40–41). The attributes of substance supply its generic and specific identity conditions by which it is recognized as a being of a certain kind. In virtue of attributes, moreover, certain modes are possible in a substance while others are not. In particular, Wolff conceives mind and body as distinct species of substance in virtue of principal attributes that ground the possibilities of mutually exclusive kinds of mode (*Ont.* §772). Thus, a stone can become hot or blue but cannot remember or become afraid. To know something as a (finite) substance is to cognize both that it is suited to independent existence through God's creative power, and that it is suited to take on a definite range of modes. In both of Wolff's definitions of substance—as a subject of constant and variable intrinsic determinations, and as a perdurable and modifiable subject—the key notion is that of an essence constituting a being as a substratum for other beings. The latter may be either permanent, necessary features of a subject (attributes) or variable, contingent states (modes) determined by one subject's relation to others. But both attributes and modes presuppose a subject of inherence.

Although Wolff conceives substance as substratum, he is careful to distinguish his account from the "common" one of substance as a bare receptacle of qualities (*Ont.* §773). The latter is framed by stripping away the accidents perceived to pass in a thing, such as the successive changes in size or degrees of heat of a stone. To this view, Wolff objects that what is left over once all accidents are removed from the subject is a merely imaginary being (*ens imaginarium*), a wholly indeterminate something that cannot be positively characterized in any way. This approach inevitably leads to the skeptical conclusion that the substance of things is unknown to us. In the note to §773, Wolff ascribes this error to Locke, who defines substance as the substratum of qualities that produce simple ideas in us (*Essay* 2.23.2). As Wolff reads him, Locke's idea of pure substance is of a featureless particular that cannot be characterized in any definite respect, or in any way except by reference to the series of qualities perceived in it. Against Locke, Wolff endorses Descartes's view that substance should be conceived through a positive notion of a "fundamental determination to which all others are related"—what Descartes calls a "principal attribute" and what Wolff further analyzes as a structure of essential predicates (*Principles* I.53; AT 8A.25). In other words, Wolffian substances do serve as substrates for perceptible qualities, but only in virtue of attributes that make certain modes possible. A substance is not a wholly indeterminate stuff onto which properties are stuck.

Wolff reinforces his criticism of the bare substratum account by placing his own in a different lineage. He casts his contribution as an adjustment to the view he finds in both Descartes and the scholastics—conspicuously missing from this narrative is Leibniz. On Wolff's reading, the scholastic definition of substance as what per se subsists and sustains accidents is fundamentally correct. Descartes's achievement here was to remove certain obscurities in it, thus to improve rather than overturn the traditional account. The weakness in the scholastic doctrine, according to Wolff, is its lack of clarity: "In this definition, however, it seemed unclear what subsisting *per se* is, and what it is to sustain accidents. For there are no observable signs in things by which it is understood that a being subsists of itself and endures accidents" (*Ont.* §771). For him, Descartes's definition of substance in *Principles* I.51 as "a thing which exists in such a way as to depend on no other thing for its existence" (AT 8A.24) clarifies the meaning of subsistence (*Ont.* §772). First, it makes explicit that, strictly speaking, only God satisfies the definition, so that the concept does not apply univocally to God and creatures. Created substances are called such under the qualification that they require only God's ordinary concurrence in order to exist. That is, created substances are those beings that exist in accordance with God's original dispensation to create the world with a certain order. They are distinguished from modes and accidents inasmuch as the latter depend—again, in the ordinary course of nature—on the existence of created substances. Second, Descartes correctly observes that subsistence is not distinctly known through mere existence. That something is capable of subsisting apart from any other created being has to be known through some feature that would account for such a manner of existing. On Wolff's reading, Descartes identifies the attributes of extension and thinking as two such features that render the scholastic concept of substance more intelligible.

Yet, according to Wolff, while Descartes merits praise for having shown a better way to "discover and discern substance from accidents," a shortcoming of his account is that it does not adequately locate the conditions of substancehood in the subject itself (*Ont.* §772). Having identified extension and thought as sufficient for recognizing something as substance, Descartes analyzes the distinction between substance and mode simply in terms of their respective causal relations to God, and thus to something extrinsic to the subject. For Wolff, however, if the distinction is to be cashed out in terms of different manners of existence with respect to one and the same subject, "there ought to be something in the subject itself so that the difference in ways of existence or the difference of subsistence can be understood where we suppose it to exist [*ubi ipsum existere supponimus*]" (*Ont.* §772).[18] On Wolff's view, differences in the manners of existence of substances and of what depends on them should be conceived as resulting from the essence

[18]On Wolff's narrative, Clauberg notices this feature of Descartes's explication of the scholastic definition of subject and, accordingly, revises the Cartesian definition by specifying that a substance does not need another existing subject, whereas accidents necessarily exist in another: a substance is "a thing that exists in such a way as to need no other existing subject, as opposed to an *accident*, which exists in another, as in a subject" (*ME* iv.44). Both Clauberg and Wolff presume that Descartes's aim was to clarify the scholastic definition of substance. The assumption of a basic harmony between Cartesian and Aristotelian metaphysics is a prominent feature running through much of the German Cartesian tradition; see Hamid, "Domesticating Descartes," 75–82.

of a subject, rather than from one subject's relation to another. Wolff regards his own account of substance—a subject conceived through a set of compatible and mutually nonentailing primitive predicates that constrain the class of modes that could belong to it—as further refining the scholastic and Cartesian accounts.

To summarize, Wolff's notion of substance is of a subject suited to independent existence and is fully expressed in the concept of essence (*Ont.* §168). What this account excludes is the principle of the actuality of modes. Wolff calls this further principle the "nature" of substance. His distinction between essence and nature is considerably sharper than that of earlier authors. He acknowledges the standard conception of their relation as captured in the slogan, "nature is essence in act." On the traditional view, essence should be the "inmost part of a thing, which in a certain sense embraces the rest, or at least is the root and foundation of all of them," while nature signifies the same essence "with respect to the properties and operations that flow from it" (§168). On that account, 'essence' and 'nature' merely indicate whether something is being considered statically or dynamically and, for that reason, are often used interchangeably.[19] Yet, Wolff suggests that there is an important difference between the two notions, one already recognized by modern scholastics such as Suárez and Clauberg, which he will treat "in its proper place" (§169n).

4. POWER AND FORCE

When Wolff finally turns to the concept of force (*vis*), he locates it outside essence. Force is not part of the concept of substance, still less identical with substancehood, as on plausible interpretations of Leibniz. Indeed, force occupies a nebulous status in Wolff's system—it is neither essence, nor attribute, nor mode. Wolff's procedure leading to this result can be summarized as follows: theorizing about substance begins by observing existing individuals with their variable states. We define substance by abstracting away its contingent modes, and thus also the principle of actuality of modes. What remains is a subject possessing necessary powers (*potentiae*) in virtue of its essence and suited for existence apart from any other (nondivine) being. In subjects belonging to the actual world, we posit on the basis of experience an extra ingredient, a force by which their powers are actualized. This added ingredient is a distinct principle of becoming (*principium fiendi*), which is neither identical nor reducible to a substance's principle of possibility (*principium essendi*) (*Ont.* §874).

Wolff defines force nominally as that which "contains in itself the sufficient reason for the actuality of an action," and its basic characteristic as "a continuous striving to act" (*Ont.* §§722, 724). For Wolff, force is distinct from power, or the "possibility of acting" (*possibilitas agendi*) (§716).[20] Powers express the kinds of

[19]Aquinas, for example, writes in *On Being and Essence*, chap. 1, that nature "seems to signify the essence of a thing insofar as it is ordered to the thing's proper activity, and nothing is without a proper activity." In Aquinas's formulation, the essence/nature distinction only marks a difference in how something is considered, but does not track any real difference in things. To speak of a thing's essence or its nature is nothing more than to refer, respectively, to its characteristic capacities or powers and to those same capacities or powers as actualized.

[20]The *vis/potentia* distinction is present in *German Metaphysics* as *Kraft/Vermögen*; see *DM* §117.

change possible in a subject, thus constituting it as a being apt for certain causal relations. Powers, however, are not sufficient to produce actions or passions (§§717–20). On Wolff's account, force is the extra feature that, when posited, translates potencies to acts:

> Force ought so to be conceived that action is understood to follow from it as soon as it is placed in the agent. Thus, for example, as soon as motor force is placed in something able to move, the motive action on which its transfer through space depends is also conceived in it. (§723n)

Force presupposes, first of all, an existing substance conceived as a structure of essential predicates that determine fixed attributes. It further presupposes specific powers belonging to that substance in virtue of its attributes. The addition of force to those powers results in token modifications. Force itself is thus neither substance, nor essential (*essentiale*), nor attribute, nor mode. What exactly, then, is its place in Wolff's ontology?[21]

As with substance, Wolff situates his account of force and power in a narrative leading from seventeenth-century scholastics to himself. In this story, Leibniz's essay "On the Correction of Metaphysics and the Concept of Substance" (GP IV.468–70/L 432–34) plays a pivotal role: on Wolff's retelling, Leibniz is the first to distinguish cleanly the notions of force and power (*Ont.* §761). Wolff begins with Goclenius, whose popular *Lexicon philosophicum* (1613) epitomizes the scholastic tendency to characterize created substances in terms of active and passive *potentiae* while relegating the concept of force (*vis*) to physics. Wolff charges that, although Goclenius recognizes the insufficiency of bare powers for action, he does not offer an account of why certain dispositions are actualized at any moment. On the scholastic picture of mutually adjusted powers as grounds of change, nothing explains why a power begins to operate once all necessary conditions are in place.[22]

---

[21] One proposal to account for the ontological status of Wolffian force treats it as an essential, thus as among the primitive predicates that make up essences and determine attributes. Recognizing the instability of Wolff's texts on the matter, Heßbrüggen-Walter (*Die Seele*, 69–74) suggests that treating force as an essential property of actual substances might be the most reasonable position Wolff could have taken. His proposal approaches the problem of the relation between power and action through the more basic question of how to understand Wolff's dictum that "existence is the complement of possibility" (*Ont.* §174). Heßbrüggen-Walter's solution is attractive insofar as, by construing force as the specific difference between actual and possible beings, one could avoid the need to treat existence itself as a predicate that would distinguish actual and possible substances, and instead draw that distinction at the level of essential properties. But while the texts do not unequivocally rule out this account (Wolff never declares that force is not an essential), they also do not affirm it (Wolff also nowhere states that force belongs to the essence of substance). Moreover, treating force as an essential, and hence as determining attributes, threatens to blur the distinction between power and force that Wolff does explicitly draw, and so does not fit well with Wolff's broader picture. As we shall see below, for Wolff, ascribing neither existence nor force requires adding essential predicates to a possible being. Force, like existence, may only be a feature of substances qua members of a world. The key motivation behind Heßbrüggen-Walter's proposal thus falls away, while a textually plausible reading that does not saddle Wolff with essential forces determining attributes remains available.

[22] Wolff's observation with respect to Goclenius's exclusion of force from the doctrine of powers is accurate. Goclenius (*Lexicon philosophicum*, 837–43) devotes several pages to '*potentia*,' recapitulating standard scholastic divisions between active and passive powers, objective and subjective potencies, and habits and dispositions. Lacking here is any discussion of a principle of actuality, though he does hint at a requisite for action that Leibniz would later exploit, viz. the condition that action should follow from an active power as long as there is no impediment. Goclenius gives a separate, cursory treatment of '*vis*' (321–22), but it is restricted to the physical senses of inherent (*insita*) and violent (*violenta*) force.

Descartes's contribution in this narrative is only methodological. By introducing the principle that nothing should be accepted that is not clearly and distinctly understood, he calls attention to the obscurity of the scholastic concept of power. Yet, Wolff continues, with respect to the question of the sufficient ground of action, Descartes does no better than to attribute the efficacy of causal powers to the divine will. Descartes's most able disciple, Clauberg, simply follows him in this regard and winds up treating force, capacity, and power (*vis*, *facultas*, *potentia*) as synonyms that express only "a non-repugnance to acting, that is, the possibility of acting, which is the notion of bare power [*nuda potentiae*]" (§761). In this circumstance, later Cartesians such as Malebranche and Johann Christoph Sturm adopt the occasionalist solution: God is the sole cause of activity in nature.

In Wolff's story, it is left to Leibniz to underscore the vast gulf between active force and the power of acting:

> The active power of the scholastics, or capacity, is nothing else than the close possibility of acting [*propinqua agendi possibilitas*], which needs an external excitation and, as it were, a stimulus, in order to translate into action. But . . . the active force contains a certain action, and is intermediate between the capacity of action [*facultatem agendi*] and the action itself and involves an effort [*conatum*]; thus it is by itself directed to the operation, nor does it need an auxiliary, but only the removal of an impediment. (*Ont.* §761; see also GP IV.469/L 433)[23]

Leibniz's insight is that active force is unlike a power inasmuch as it is always exerting itself. Active force requires only the removal of an impediment in order to result in action, not an external trigger from an already active being to move a substance from potency to act. By contrast, the scholastic view distinguishes substantial powers only with respect to what they call first and second act—the realization of a natural power in virtue of the existence of a substance that has it, and the actualization of that same power such that it begins to operate. In second act, the actualization of a causal power requires the prior existence of something that is already in act and is naturally suited to reduce specifically that power. Wolff praises Leibniz for having insisted that created substances should be conceived as themselves possessing this further requisite, an inherent mover that produces action when unimpeded. Leibniz variously calls this mover "primitive active force," "entelechy," and "substantial form."

Thus far, Wolff is in agreement with Leibniz. But whereas Leibniz takes his emendation to yield a radically different concept of power/force/faculty, Wolff revises the Leibnizian concept of force as being complementary to that of power. In other words, where Leibniz offers *vis* as a replacement for scholastic *potentia*, Wolff uses it to supplement scholastic powers in order to capture a feature of substantial agency missing in those accounts. That Leibniz took his notion of force as a preferable alternative to scholastic powers seems clear. In "On Nature Itself,"

---

[23]Wolff quotes Leibniz's 1694 essay with interpolations referencing Clauberg. According to Wolff, Clauberg had already appreciated that the scholastic notion of power/force/faculty does not fully account for the actuality of dispositions grounded in essences. But he had not gone further to conceive force as *conatus*, and ultimately treated *vis agendi* interchangeably with *facultas* and *potentia* as what "an agent is said to have with respect to action," which is "nothing other than a non-repugnance to acting" (*ME* xiv.234). For Clauberg's account of substance and activity, see Hamid, "Johann Clauberg."

he contends that "a power [*potentia*] which can never be exercised is meaningless" and, consequently, powers conceived as mere capacities cannot suffice for action. Instead, what substantial agency demands is something satisfying his own concept of force as constant striving (GP IV.509/L 502). On Leibniz's view, scholastic powers are not genuine entities at all but rather mere names for characteristic patterns of behavior expressed by internally active substances. His dismissal of the scholastic concept of power is reflected in his tendency to treat *vis* and *potentia* as synonyms to refer to that feature whose primary characteristic he defines as "effort or striving toward action" (*conatum seu tendentia ad actionem*) ("On Body and Force," GP IV.395/AG 252).[24] For Leibniz, occasionalists such as Sturm err in retaining the scholastic concept of *potentia* and differ from their opponents only in expressly denying agency to natural substances.

Wolff is persuaded by Leibniz's criticism both of the scholastic treatment of power and of the occasionalist alternative.[25] At the same time, he does not collapse scholastic powers into Leibnizian forces. The challenge for Wolff here is to identify precisely the status of force in his scheme. Active and passive powers belong to substances in virtue of attributes. So, for example, the power of translational motion belongs to something in virtue of its having spatial properties; and the power of receiving heat belongs to stones, and the power of compressibility to sponges, in virtue of facts about their corpuscular structures. Forces of acting and resisting, however, are not attributed to substances in virtue of their essential predicates, but only insofar as they produce change or resist being changed. Thus, he writes, "In the notion of simple existing substances no force can be conceived, and thus no continuous striving to act by which their state is continually changed, unless they are resisted" (*Ont.* §794n; see also §776). In other words, force only figures in an account of the actual world by supplying a reason for the perceived succession of modes.

---

[24]Leibniz uses the various terms for force or power in Latin, French, and German—*vis, virtus, potentia, force, puissance, Kraft*—interchangeably; see Jorati, "Leibniz's Ontology," for textual evidence. In her exposition of Leibniz's replacement of scholastic powers with his own notion of force, she rightly emphasizes Leibniz's denial that the scholastic account picks out a genuine entity. Bolton ("Locke and Leibniz," 118–19) likewise stresses that, for Leibniz, powers as potentialities do not reduce to force, nor are they a distinct category of dependent real beings. Rather, Leibniz simply eliminates powers in the scholastic sense.

[25]From early in his career, Wolff is committed to the reality of secondary causation. His conversion from Sturmian occasionalism to natural dynamism happens early in his correspondence with Leibniz. In later autobiographical notes, Wolff recalls having sided with Sturm while still a student in Jena upon reading "On Nature Itself" (*WeLb* 116). The occasionalist view that God is the sole agent and that there are no secondary causes is also present in an early dissertation on language, "Disquisitio philosophica de loquela," which he sent to Leibniz in 1705 (in *MMP* II.35, 244–67). Detecting the occasionalist leanings of his young interlocutor, Leibniz directed Wolff to his articles on preestablished harmony in *Journal des savants* and *Histoires des ouvrages des savants*, and the article "Rorarius" in Bayle's dictionary (August 20, 1705, *LW* 32). In subsequent letters, Leibniz explains his system with respect to the soul-body relation, holding that they should be thought of like two differently constructed clocks that conspire perfectly with one another even as they follow their own laws (November 9, 1705, *LW* 43–44). Leibniz's explanations seem to have made a sufficiently strong impression on the young Wolff, and preestablished harmony finds its way into another dissertation shortly thereafter: "Methodum serierum infinitarum" (in *MMP* II.35, 290–319), which he also sent to Leibniz on May 5, 1706. Wolff's most detailed criticism of occasionalism occurs in *Psychologia rationalis*, sect. III, cap. III. It should be noted, though, that the later Wolff also restricts his embrace of preestablished harmony as merely a plausible hypothesis for the mind-body problem while withholding his assent to it as a universal account of intersubstantial relations.

One consequence of Wolff's position is that substances are assigned force only insofar as they are perceived as changing; force is not a requisite for the mere possibility of substancehood. Force accounts for substances standing in actual causal relations and, thereby, constituting an interconnected aggregate, or a world. For Wolff, the notion of (finite) existence presupposes an actual world. Something is said to exist just in case, for any predicate, necessary or contingent, it either belongs to it or does not. As Wolff puts it, existence is merely the "complement of possibility" (*complementum possibilitatis*) (*Ont.* §174); it is not an attribute of existing things, as Descartes, among others, had held (e.g. *Principles* I.56, AT 8A.26). Contrary to a widespread misconception going back to Kant, this thesis does not entail that existence is a predicate added to other determinations of a possible being (say, in virtue of the causality of an existing thing) by which it passes from possibility to actuality. As Uygar Abaci persuasively argues, Wolff's claim is that for a possible being to exist just is for it to belong to a world of causally and spatiotemporally connected things. Existence does not add a further determination to a possible substance but only identifies it as a member of a world. By the same token, to ascribe force to a substance, it is not necessary that force count among its essential attributes; it is enough for a subject to be a member of a changing aggregate.[26]

A second consequence of Wolff's exclusion of force from essence is that substances have force only contingently rather than necessarily. On the basis of experience, we posit a principle of striving and resistance to created substances to account for their modifications. But it is not part of the concept of substance as such, which is framed by abstracting away its modes. Thus, Wolff continues that "in first philosophy it suffices to make clear that any simple substances whose state is actually changed must be endowed with some force" (*Ont.* §794n). On this account, unchanging finite subjects, even fully determinable ones, are conceivable in nonactual possible worlds. While we may nominally add that any substance that undergoes modification must be endowed with force, Wolff insists that "the Leibnizian notion of substance, which is distinguished from accidents by active force, cannot yet be established" (§794n).[27] For Wolff, to be a substance is to be a subject apt for existence with a suite of necessary powers that endow it with the capacity for certain modes.[28] But it does not require actually having modes, and

[26]Abaci, *Theory of Modality*, 65–74; see also Arndt, "Wolffs Theorie," 188–91. Wolff defines 'world' as "a series of finite things that are simultaneously and successively connected among themselves" (*Cosm.* §48; see also *DM* §544). The case of mental substances, or spirits, is special, inasmuch as minds can determine their own states spontaneously, i.e. without being determined by other substances. Wolff's general notion of substance, however, is neutral with respect to features specific to bodies and minds.

[27]The goal of *Ont.* §794 is to affirm the Leibnizian thesis that, in the strict sense, only simple substances count as substances; composite substances (*substantia composita*), or bodies, are only called substances by convention, which is useful and to that extent to be retained, but not philosophically accurate; more on this in section 5. In this context, Wolff repeats the point that what makes a simple being a substance in the proper sense has to do with the dependence of composites on it, not with its having force.

[28]As Arndt ("Wolffs Theorie," 189) argues against, among others, Bissinger (*Struktur*, 158), Wolff's thesis that every existing thing is fully determined (*omnimode determinatum*) does not entail the converse: that every fully determined thing exists. That is, it leaves room for fully determinate yet merely possible substances.

hence does not require force. Force accounts for why a merely possible mode either belongs to an actual individual or does not. But nothing in Wolff's ontology requires every subject to have force.

To reiterate, Wolff insists that his definition of force is merely nominal. Force lacks a real definition, and simply signifies whatever is required to bridge the gap between a possibility of acting and action itself. It thus does not fit into any of the basic categories in Wolff's ontology: it is neither an essential (*essentiale*), nor an attribute, nor a mode, still less a subject of predication. For all he tells us in *Ontologia*, the dynamism of natural substances might be the result of a special divine institution by which creatures receive a property inconceivable through their essences. An upshot of Wolff's account, then, is that the dynamical character of things can only be provisionally described through observation. While we grant that no substance would act except in virtue of some constantly striving force, all that can be said about force is what can be gleaned from its effects. In subsequent parts of Wolff's metaphysics, this leads him to sharply divergent accounts of physical and mental force, based on outer and inner experience, respectively. It also leads him to recognize clear limits on the intelligibility of force in material beings.

5. ELEMENTS, FORCES, AND PHENOMENA

Wolff begins his account of corporeal substance in *Cosmologia* (II.1) by distinguishing its essence from its nature. The essence of body is to be a composite being (*ens compositum*): it consists "in the manner in which its parts are connected among themselves" (*Cosm.* §140; see also *Ont.* §533). Through its essence, a body has extension, figure, and size. From the notion of corporeal essence also follows that no change is possible in bodies except in respect of these features (*Cosm.* §§122–27). In virtue of geometrical features, bodies possess necessary powers (*potentiae*) disposing them to certain changes rather than to others (§§142–43).

Wolff defines the nature of corporeal substance, meanwhile, as "the active and passive powers of a body joined to its active force and the force of inertia" (*Cosm.* §145). Nature is the principle of motion and rest in a being that is actually moved or changed and is conceived narrowly as active or moving force (*vis activa seu motrix*) (§§136–37). Wolff likens his account of nature to Aristotle's and sometimes presents it as a gloss on Aristotle's term '*energeia*,' as what goes beyond mere power to express the operation of a natural substance (*Ont.* §761). On Wolff's view, the nature of body is determined through neither its essence nor its matter. For essence grounds only a body's mechanical powers, and matter only its character as space-filling, resisting bulk (*Cosm.* §147). Wolffian nature is neither an active form (as on certain scholastic conceptions of substantial form) nor active matter (as on certain vitalist alternatives). The nature of body rather consists in a conjunction of facts about what is possible given its essential, corpuscular powers and a force suited to their operation. Since corporeal powers are dispositions for change in spatial properties, moving force (*vis motrix*), or "a continuous striving to change place," is attributed to bodies wherever local motion is observed (§§148–49). In keeping with his general notion of force, Wolff restricts bodily force to what is needed to represent a succession of modifications in an extended thing.

Wolff acknowledges, though, why one might think moving force (as well as matter) is itself corporeal substance. Moving force is persistently attributed to any movable thing as its modes, namely, speed and direction, vary. That is, force appears to us as a perdurable and modifiable item relative to changing directions or degrees of speed. Consequently, one might be led to represent moving force itself as the substratum of variable speed and direction, just as one might imagine extension itself as the substratum of different shapes and sizes, as some Cartesians had done. Warning against such a mistake, Wolff recommends instead that moving force "ought to be conceived in the likeness of substance" (*concipi debet instar substantiae*), but not as a true substance itself (*Cosm.* §169). Force certainly appears as something that perdures relative to degrees of speed, just as matter perdures relative to this or that shape. But such appearances do not qualify force and matter as true subjects. Put differently, Wolff rejects an inference from the relative perdurability of moving force and matter to their claim to substancehood. Force and matter are concepts drawn from phenomena to represent the relative permanence of certain features of bodies relative to others. For this reason, it is useful in certain contexts of inquiry to treat force and matter as if they were substances. Yet, properly speaking, neither constitutes a complete subject suited for independent existence, and so should not be mistaken for substance itself.[29]

To capture the distinction between true substances and apparently stable features like force and matter, Wolff appropriates Leibniz's terminology of 'substantiated phenomenon' (*phaenomenon substantiatum*) to refer to anything that may be treated as if it were substance (*instar substantiae*) on account of appearing perdurable and modifiable relative to another (*Cosm.* §299).[30] The label applies both to bodies as such and to their matter and moving force. Bodies are phenomena insofar as they appear confusedly to the senses as space-filling bulk that resists displacement and as a continuous striving to displace another body from a region of space. They have something substantial in them, meanwhile, insofar as the concept of a composite being presupposes simple beings whose aggregation grounds, in this case, the appearances of bodies as extended and moving quantity.

Wolff's argument for admitting simple substances in ontology is familiar from Leibniz: composites presuppose simples for the reason that a composite cannot ground its own composition. In *Ontologia*, Wolff argues as follows: Composites exist. If there were no simple beings, the parts of a composite would also be composites, and those parts likewise composites. Either this regress terminates in something noncomposite, or a composite must contain the sufficient reason for

[29]Wolff also rejects the hylomorphic option of composing substance from moving force and matter, the former being the active principle that acts in the latter, passive principle. For Wolff, that two principles wholly distinct in kind should unite to produce something that is itself a perdurable subject of change is rightly rejected by the moderns as "incongruous" (*absonum*). The situation that leads the Aristotelians to hylomorphism instead points to a further underlying thing "from which the reason can be given for why moving force no less than matter appears in the likeness of substance" (*Cosm.* §169n).

[30]Wolff defines 'phenomenon' in general as "what is confusedly perceived by the senses" (*Cosm.* §225). On occasion, he also uses the phrase '*ens substantiale*' to refer to bodies (e.g. *Ont.* §794n). All these locutions—'*ens substantiale*,' '*phaenomena substantiata*,' '*concipere instar substantiae*'—aim to distinguish substance *simpliciter* from what is well-grounded in substances, and what is thus not a mere illusion but expresses the way reality is supposed to appear to perceivers like us.

its own composition. That is, either composition results from simple beings—as a line results from the motion of a point—or composition can be explained by appeal to other composite beings—a line would be composed from smaller yet still extended lines. Wolff dismisses the latter option as absurd. Hence, simple beings must exist, if composites exist (*Ont.* §686).[31]

In *Cosmologia*, Wolff calls the simple beings that ground the composition of bodies "elements" (*Elementa*): "an internal principle of bodies unresolvable in another" (*Cosm.* §181). Elements share the general properties of simples: they are partless, unextended, indivisible beings lacking magnitude and figure, and can neither result from nor be modified by serial addition or replacement of parts (*Ont.* §§673–78). Aggregates of elements give rise to bodies by grounding dispositions to act and be acted upon in determinate ways.[32]

Also in Leibnizian fashion, and on pain of denying with the occasionalists any immanent activity in nature, Wolff conceives elements as centers of force. By an argument parallel to the one for admitting simple beings given composites, he further concludes that variable forces in bodies originate from simple forces in elements (*Cosm.* §196). Unlike Leibniz, however, he maintains a firm distinction between the essential features of elements that ground the mechanical powers of bodies, on the one hand, and the simple force that accounts for their operation, on the other hand. That elements have force does not follow from their essence, nor is it distinctly understood from the appearances of space-filling bulk. Consequently, an analysis of elements and the composites resulting from their aggregation licenses very limited conclusions about their dynamical natures. Indeed, for Wolff, from the confused perception of local motions we may only infer that force in elements should be suited to modify extensive magnitudes—the shapes, sizes, and relative positions of bodies; but we cannot determine it with more precision.

In the end, Wolff leaves the question of the foundation of physical force unsettled. While elements serve as the contingent principles of corporeal actions and passions, he admits that "it is not yet clear what the force is of any simple substance in an aggregate of simple substances" (*Cosm.* §294n). For the purposes of formulating mathematical laws of force, kinematic phenomena are usefully represented as composed from an array of force points. As for the nature of elemental force that gives rise to these phenomena, however, all we are in a position to say is that "the active forces of simple substances conspire in a certain way [*certo quodam modo conspirant*] so that they appear as one: it is not possible to explain this more distinctly, so long as the specific difference of active force remains unknown" (§294n). Wolff repeats his agnosticism about the nature of elemental

[31]For a comparison of Wolff's argument with Leibniz's, see Watkins, "Leibniz und Wolff." The thesis that composites presuppose simples is not original to Leibniz, however; it is common among scholastic authors such as Clauberg (*ME* xix.302–3).

[32]Wolff's argument for the origin of extension from unextended simples has been roundly criticized for confusing nonidentity with spatial externality; see Arthur, *Monads*, 28–31; and Rutherford, "Idealism Declined," 232. Wolff argues in *Cosm.* §221 as follows: aggregated elements exist outside each other (*extra se invicem existunt*) and yet are united with one another. Since the individual elements are dissimilar, there must be some reason by which their nonidentity is recognized. Wolff slides here from the nonidentity of elements in an aggregate to their spatial externality, effectively supposing that whatever distinguishes one element from another would also suffice to distinguish them spatially.

force (§§358–65) in the context of Leibniz's account in *Specimen dynamicum* of primitive force, as what is per se in a corporeal substance, the modifications of which yield the derivative forces expressed in mathematical rules of motion (*GM* VI.236; L 436). With Leibniz, Wolff ascribes primitive force to bodies, and criticizes those—he has in mind the occasionalists—who treat bodies as inert beings that act for no other reason than God's having impressed force on matter at its initial creation. At the same time, he insists against Leibniz that "until the intrinsic, or generic and specific, determinations of elements are known, primitive force cannot be intelligibly explained" (*Cosm.* §359n). Lacking insight into elemental natures, what we are left with is only a conception of moving force as a relatively perduring and modifiable thing, as the phenomenal subject of the laws of motion. In other words, while Wolff acknowledges a deeper ground to moving force than the rules of motion, he denies that we are in a position to give an account of it beyond the mathematical description of its appearances. In terms of Wolff's distinction between essence and nature, we might say that the essences of material things are better known to us than their natures.

Wolff's incomplete, and perhaps unsatisfactory, account of how elements ground corporeal substance is a consequence of his commitment to two distinct theses. First, he conceives substance as a subject of universal accidents. Second, he accepts the dictum that true substances are simple, with its corollary that the existence of compounds presupposes the existence of simples. The first thesis leads him to exclude force from the essence of substance and to treat it instead as a special feature of created substances drawn from observation of their actual changes. He warns especially against mistaking force for substance itself. On Wolff's scheme, identifying primitive force with substance—as Leibniz sometimes does—amounts to a category mistake, in the same way that, for Wolff as for Leibniz, the Cartesians err in treating extension itself as substance. For Wolff, the theoretical role of the concept of substance is not merely to account for any unity of properties but, more importantly, to cross the categorial divide from dependent to independent being. At the same time, his acceptance of the simplicity of true substances leads him to conclude that our understanding of corporeal force only moves at the level of phenomena, as a description of effects in space and time whose ultimate causes in simple beings remain obscure. Since we are not in a position to go behind the elements in which we posit bodily force, the question of the true origin of dynamism in matter cannot be answered.

At this juncture, Wolff resists the Leibnizian option of conceiving elemental force on the model of the (allegedly) better known force of representation with which inner experience acquaints us. For Wolff, the idealist solution comes at too high a price, namely, of abandoning commitment to the material world as a distinct substantial domain; it is in any case underdetermined by the evidence of the senses. He opts instead to restrict the scope of cosmological speculation, declaring that his concern in this regard is only to defend the simplicity of the elements of material things, not to settle the question of what kind of force is in them. Having thus duly recognized the limits of metaphysical theorizing about body, he is willing to "cheerfully leave behind Leibniz and his thesis of the monads," especially since, in Wolff's opinion, this can be done without damaging the aims of cosmology or physics (*Cosm.* §243n).

6. WOLFF AND THE EIGHTEENTH CENTURY

I have argued that Wolff's departure from Leibniz's monadology is rooted in deeper differences between the two authors' doctrines of substance. Wolff retains a broadly scholastic and Cartesian view of substance as a perduring subject of accidents. A Wolffian substance is a being suited to independent existence and is endowed through its essence with necessary powers. In contrast to Leibniz, Wolff marks a clear distinction between power and force. For Wolff, the latter designates a merely contingent principle of actuality by which substantial powers operate. While force is required for an explanation of perceived change, it is not a principle of the possibility of substancehood. Corporeal force, in particular, remains poorly understood, and is indistinctly represented through its observed effects of local motion. In his cosmology, Wolff leaves open the question—to be resumed in natural theology—of the ultimate origin of force in the universe.

Wolff's treatment of substance displays one crucial respect in which he serves as a conduit for Leibnizian ideas in the eighteenth century. His attempt to assimilate Leibniz's concept of force into a scholastic-Cartesian theory of substance, while insisting on a sharp distinction between corporeal and mental substance, results in an incomplete account of bodies in which the relation between dynamical forces and mechanical powers, and between true physical substances and their spatial phenomena, remains imprecise. It is this account, significantly at odds with Leibniz's, that forms the immediate backdrop to subsequent debates on the metaphysics of bodies. In conclusion, I briefly indicate some directions in which the Wolffian stream flows.

One line of development passes through Du Châtelet's *Institutions de physique* (1740). Like Wolff, Du Châtelet distinguishes corporeal elements from minds, and specifically denies representational force to the former. For her too, bodies with extension and force result from the aggregation of elements without presupposing any representational relations, or any ground in mental activity. This leads her as well to recognize an explanatory gap between real relations among elements and the perceived features of bodies. Although a distinct understanding of the origins of moving force eludes us, she concurs with Wolff that we must suppose that the actions of aggregated elements "conspire together" (*conspirent ensemble*) to produce the appearances of bodies (*IP* §155). Unlike Wolff, however, from agnosticism about the real ground of extension and force she moves in an explicitly idealist direction about the unity of "*phénomenes substantiés*": like colors, the perceived geometrical and dynamical properties of bodies are confusions resulting from the human sensory capacity, which yields images "infinitely different" from their elemental source (*IP* §§156). Thus, while sharing Wolff's concern to defend a realist account of material substance against views that would reduce bodies to the representational contents of minds, Du Châtelet nevertheless marks a turn toward subjectivity as the ground of appearances that both echoes Leibniz and points toward Kant. More to my present purposes, as Marius Stan has argued, closer examination of Du Châtelet's metaphysics shows that Wolff, and not Leibniz or Newton, is the proximate source for the key concepts in her account of body.[33]

[33] Stan, "du Châtelet," 495.

A second thread winds through Baumgarten. In his *Metaphysica* (1739), Baumgarten steps cautiously back toward Leibniz by blurring Wolff's distinction between power and force. The notion of *vis*, for Baumgarten, denotes a substantiated phenomenon—that is, an accident that seems to subsist per se (*Met.* §193)—and permits wider and narrower meanings. In the wider sense, it refers to any ground of inherence in a substance; in the narrower sense, however, it refers only to a sufficient ground. He identifies the latter as force *simpliciter* and, indeed, as the substantial element in a thing in virtue of which other accidents inhere in it (§197). Thus, despite beginning with Wolff's distinction between power as an essential ground of inherence and force as the principle of action, and of a Wolffian characterization of force as *phenomenon substantiatum*, Baumgarten ultimately decides in favor of a unitary notion that may be applied more strictly or loosely. In lectures from the 1780s, Kant would criticize Baumgarten's conclusion—that *vis* (*Kraft*) just "is a substance, and to the extent that accidents can inhere in it as in a subject, it is substantial" (§198)—as "contrary to all rules of usage," and instead follow Wolff in maintaining that substance is that which has force, rather than being itself a force (*Metaphysics Mrongovius*, AA 29:771).

The issue of substance and force in fact lies at the very beginnings of Kant's career. In his first published work, *Thoughts on the True Estimation of Living Forces* (1748), Kant sides with Baumgarten and Leibniz in ascribing essential force to bodies, against the Wolffians who frame the concept of force through its specific effects. The young Kant likens the Wolffian strategy of defining *vis motrix* by reference to the local motion of bodies to the scholastic habit of defining, for instance, *vis calorifica* or *vis fragificiente* by reference to the phenomena of heat and cold. As motion is merely the outward behavior of a body, the Wolffian concept does not express the metaphysical reality underlying phenomena, which Kant thinks is better captured by the Leibnizian concept of *vis activa* (AA 1:17–18). He returns to the problem—again in the terms in which it is posed in the Wolffian school—of how change is grounded in material substance in *New Elucidation* (1755) and *Physical Monadology* (1756). This central issue in eighteenth-century metaphysics persists into his critical period, and the Wolffian background is still visible in the Second Antinomy of the *Critique of Pure Reason* and the *Metaphysical Foundations of Natural Science*.[34]

With the rise of the new physics, the problem of material substance and corporeal force emerged as a central topic in eighteenth-century philosophy. Its contours, at least on the Continent, owed directly to Wolff and those working in his framework to articulate the foundations of dynamics. With this paper, I hope to have contributed to a better understanding of the genesis of the problem in Wolff's reasons for revising Leibniz's system.[35]

---

[34]See Stan, "Theory of Motion"; and Watkins, "Forces and Causes," for the Wolffian background to the precritical Kant's accounts of force and substance. Radner ("Second Antinomy") fleshes out the Wolffian assumptions behind the arguments for the thesis and antithesis of the Second Antinomy.

[35]For generous written feedback on earlier versions of this paper, I wish to thank Don Rutherford and Devin Curry, as well as the referees for this journal. Versions of this paper were presented at conferences in Haifa and Halifax, and I thank those audiences for their questions and comments.

BIBLIOGRAPHY

Abaci, Uygar. *Kant's Revolutionary Theory of Modality*. Oxford: Oxford University Press, 2019.

Antognazza, Maria Rosa. "Primary Matter, Primitive Passive Power, and Creaturely Limitation in Leibniz." *Studia Leibnitiana* 46 (2014): 167–86.

Arndt, Hans Werner. "Zu Wolffs Theorie möglicher Welten." In Wolff, GW III.31, edited by Sonia Carboncini and Luigi Cataldi Madonna, 175–91. Hildesheim: Olms, 1992.

Arnsperger, Walther. *Wolffs Verhältnis zu Leibniz*. Weimar: Felber, 1897.

Aquinas, Thomas. *On Being and Essence*. Translated by Robert Miller. Internet Medieval Source Book, 1997. https://sourcebooks.fordham.edu/basis/aquinas-esse.asp#f2.

Arthur, Richard T. W. *Monads, Composition, and Force*. Oxford: Oxford University Press, 2018.

Baumgarten, Alexander G. *Metaphysica*. Halle: Hemmerde, 1739. [*Met.*]

Bissinger, Anton. *Struktur der Gotteserkenntnis*. Bonn: Bouvier, 1970.

Bobro, Marc E., and Kenneth Clatterbaugh. "Unpacking the Monad: Leibniz's Theory of Causality." *Monist* 79 (1996): 408–25.

Bohatec, Josef. *Die cartesianische Scholastik in der Philosophie und reformierten Dogmatik des 17. Jahrhunderts*. Leipzig: Deichert, 1912.

Bolton, Martha Brandt. "Locke and Leibniz on the Structure of Substance and Powers: The Metaphysics of Moral Subjects." In *Studies on Locke: Sources, Contemporaries, and Legacy*, edited by Sarah Hutton and Paul Schuurman, 107–26. Dordrecht: Springer, 2008.

Carraud, Vincent. "L'ontologie peut-elle être cartésienne? L'exemple de l'ontosophia de Clauberg, de 1647 à 1664: de l'ens à la mens." In *Johannes Clauberg (1622–1665) and Cartesian Philosophy in the Seventeenth Century*, edited by Theo Verbeek, 13–38. Dordrecht: Springer, 1999.

Cassirer, Ernst. *Philosophy of the Enlightenment*. Boston: Beacon, 1955.

Clauberg, Johann. *Metaphysica de ente, quae rectius Ontosophia*. In Clauberg, *Opera omnia philosophica*, vol. 1, edited by Johann Schalbruch. Amsterdam: Blaue, 1691. [*ME*]

Descartes, René. *Oeuvres de Descartes*. 2nd ed. Edited by Charles Adam and Paul Tannery. 11 vols. Paris: Vrin, 1964–74. [AT]

Du Châtelet, Emilie. *Institutions de physique*. Paris: Prault, 1740. [*IP*]

Dyck, Corey. *The First Fifty Years of German Metaphysics*. Oxford: Oxford University Press, forthcoming.

———. *Kant and Rational Psychology*. Oxford: Oxford University Press, 2014.

École, Jean. "En quels sens peut-on dire que Wolff est rationaliste?" *Studia Leibnitiana* 11 (1979): 45–61.

Effertz, Dirk. "Zur Monade bei Leibniz und Wolff." *Studia Leibnitiana* 46 (2014): 64–75.

Garber, Daniel. *Leibniz: Body, Substance, Monad*. Oxford: Oxford University Press, 2009.

Gilson, Étienne. *Being and Some Philosophers*. Toronto: Pontifical Institute of Medieval Studies, 1952.

Goclenius, Rudolph. *Lexicon philosophicum*. Frankfurt: Becker, 1613.

Hamid, Nabeel. "Domesticating Descartes, Renovating Scholasticism: Johann Clauberg and the German Reception of Cartesianism." *History of Universities* 30 (2020): 57–84.

———. "Substance, Causation, and the Mind-Body Problem in Johann Clauberg." *Oxford Studies in Early Modern Philosophy* 11 (2022): 31–66.

Heßbrüggen-Walter, Stefan. *Die Seele und ihre Vermögen*. Paderborn: Mentis, 2004.

Jorati, Julia. "Leibniz's Ontology of Force." *Oxford Studies in Early Modern Philosophy* 8 (2019): 189–224.

Kant, Immanuel. *Gesammelte Schriften*. Edited by Königliche Preussische Akademie der Wissenschaften. 29 vols. Berlin: de Gruyter, 1902–. [AA]

———. *Metaphysics Mrongovius*. In *Lectures on Metaphysics*, edited by Karl Ameriks and Steve Naragon, 109–286. Cambridge: Cambridge University Press, 1997.

———. *Thoughts on the True Estimation of Living Forces*. In *Natural Science*, edited by Eric Watkins, 1–155. Cambridge: Cambridge University Press, 2012.

Kreimendahl, Lothar. "Empiristische Elemente im Denken Wolffs." In Wolff, GW III.101, edited by Jürgen Stolzenberg and Pierre-Oliver Rudolph, 95–112. Hildesheim: Olms, 2007.

Leduc, Christian. "The Role of Experience in Wolff's Cosmology." In *The Experiential Turn in Eighteenth-Century German Philosophy*, edited by Karin de Boer and Tinca Prunea-Bretonnet, 37–54. London: Routledge, 2021.

Leibniz, Gottfried Wilhelm. *Die philosophischen Schriften*. Edited by C. I. Gerhardt. 7 vols. Berlin: Weidmann, 1875–90. [GP]

———. *Leibnizens mathematische Schriften*. Edited by C. I. Gerhardt. Berlin: Asher, 1849. [*GM*]

———. *Philosophical Essays*. Edited and translated by Roger Ariew and Daniel Garber. Indianapolis: Hackett, 1989. [AG]

———. *Philosophical Papers and Letters*. Edited and translated by Leroy E. Loemker. Dordrecht: Kluwer, 1969. [L]

———. "On the Correction of Metaphysics and the Concept of Substance." In L 432–34. Dordrecht: Kluwer, 1969.
Leibniz, Gottfried Wilhelm, and Christian Wolff. *Briefwechsel zwischen Leibniz und Christian Wolff*. Edited by C. I. Gerhardt. Halle: Schmidt, 1860. [*LW*]
Locke, John. *An Essay Concerning Human Understanding*. Edited by Peter H. Nidditch. Oxford: Clarendon, 1975. [*ECHU*]
Look, Brandon. "Simplicity of Substance in Leibniz, Wolff and Baumgarten." *Studia Leibnitiana* 45 (2013): 191–208.
Myrdal, Peter. "Leibniz and the Metaphysics of Powers." *Journal of the History of Philosophy* 62 (2024): 395–420.
Park, Jeongwoo. "Le débat wolffien sur l'idéalisme de Leibniz lors de la première diffusion de la Monadologie latine." *Revue de Synthèse* 128 (2007): 325–39.
Radner, Michael. "Unlocking the Second Antinomy: Kant and Wolff." *Journal of the History of Philosophy* 36 (1998): 413–41.
Rey, Anne-Lise. "Diffusion et réception de la dynamique. La correspondance entre Leibniz et Wolff." *Revue de Synthèse* 128 (2007): 279–94.
Rodriguez-Pereyra, Gonzalo. "Leibniz on Substance in the *Discourse on Metaphysics*." In *Locke and Leibniz on Substance*, edited by Paul Lodge and Tom Stoneham, 146–62. New York: Routledge, 2015.
Rutherford, Donald. "Idealism Declined: Leibniz and Christian Wolff." In *Leibniz and His Correspondents*, edited by Paul Lodge, 214–37. Cambridge: Cambridge University Press, 2004.
———. "Laws and Powers in Leibniz." In *The Divine Order, the Human Order, and the Order of Nature*, edited by Eric Watkins, 149–74. New York: Oxford University Press, 2013.
———. "Leibniz as Idealist." *Oxford Studies in Early Modern Philosophy* 4 (2008): 141–90.
Stan, Marius. "Emilie du Châtelet's Metaphysics of Substance." *Journal of the History of Philosophy* 56 (2018): 477–96.
Ueberweg, Friedrich. *Grundriss der Geschichte der Philosophie, Dritter Teil: Die Philosophie der Neuzeit bis zum Ende des XVIII Jahrhunderts*. Leipzig: Mittler, 1866.
Watkins, Eric. "Forces and Causes in Kant's Early Pre-Critical Writings." *Studies in History and Philosophy of Science Part A* 34 (2003): 5–27.
———. "Leibniz und Wolff im Vergleich. *Sine entibus simplicibus composita existere nequeunt*." In Wolff, GW III.103, edited by Jürgen Stolzenberg and Oliver-Pierre Rudolph, 14–28. Hildesheim: Olms, 2007.
Whipple, John. "The Structure of Leibnizian Simple Substances." *British Journal for the History of Philosophy* 18 (2010): 379–410.
Windelband, Wilhelm. *Die Geschichte der neueren Philosophie, Bd. II*. 3rd ed. Leipzig: Breitkopf and Härtel, 1904.
Wolff, Christian. *Anmerckungen über die vernünfftigen Gedancken von Gott, der Welt und der Seele des Menschen*. In GW I.3, edited by Charles Corr. Hildesheim: Olms, 1983. [*ADM*]
———. *Cosmologia generalis*. In GW II.4, edited by Jean École. Hildesheim: Olms, 1964. [*Cosm.*]
———. *Discursus praeliminaris de philosophia in genere*. In GW II.1, edited by Jean École. Hildesheim: Olms, 1980. [*DP*]
———. *Gesammelte Werke*. Edited by Jean École et al. Hildesheim: Olms, 1962–. [GW]
———. *Meletemata mathematico-philosophica*. In GW II.35, edited by Jean École. Hildesheim: Olms, 1974. [*MMP*]
———. *Philosophia prima sive Ontologia*. In GW II.3, edited by Jean École. Hildesheim: Olms, 1962. [*Ont.*]
———. *Psychologia empirica*. In GW II.5, edited by Jean École. Hildesheim: Olms, 1968. [*PE*]
———. *Psychologia rationalis*. In GW II.6, edited by Jean École. Hildesheim: Olms, 1972. [*PR*]
———. *Vernünfftige Gedancken von Gott, der Welt und der Seele des Menschen, auch allen Dingen überhaupt*. In GW I.2, edited by Charles Corr. Hildesheim: Olms, 1983. [*DM*]
———. *Wolffs eigene Lebensbeschreibung*. In GW I.10, edited by Hans Werner Arndt. Hildesheim: Olms, 1980. [*WeLb*]
Wolff, Christian, and Ernst Christoph von Manteuffel. *Der Briefwechsel zwischen Christian Wolff und Ernst Christoph von Manteuffel 1738 bis 1748*. Edited by Katharina Middell and Hanns-Peter Neumann. Leipzig: Universitätsbibliothek, 2013. [*MW*]
Zeller, Eduard. *Geschichte der deutschen Philosophie seit Leibniz*. München: Oldenbourg, 1873.