Monadologies: an historical overview

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Gottfried Wilhelm Leibniz's enigmatic *Monadology*, written in 1714, is Leibniz's most succinct and systematic outline of his metaphysics of monads and rightly recognized as a pivotal text in the history of philosophy. It opens with a concise definition of the central notion:

THE MONAD, which we shall discuss here, is nothing but a simple substance that enters into composites—simple, that is, without parts (*Theodicy*, sec. 10). (*Monadology*, §1: GP VI 607; AG 213)

As substances, monads are forces. The true nature of substance, Leibniz claims to have discovered in the early 1690s, consists in force (*On the Correction of Metaphysics*: GP IV 469; L 433. See also *New System*: GP IV 472: L 454). All true substances are also indivisible unities, for, as Leibniz said in his 30 April 1687 letter to Arnauld, ‘what is not truly one entity is not truly one entity either’ (GP II 97; LA 121). But even though a monad is one being, it is not a solitary being. A single indivisible monad can only enter into composite, divided, extended bodies in conjunction with other monads. There exists an infinite plurality of monads that together ground the infinitely divided material world. Without a plurality of monads, there would be no material world.

However, monads do not enter into composite bodies as physical parts. For Leibniz, parts are by definition always homogenous with the whole. The parts of an extended body are smaller bodies, all of which are essentially extended and divided. The division of matter hence proceeds to infinity; every body however small is divided in further extended and divided parts. Monads are indivisible unities and cannot therefore be homogeneous parts of divided aggregate extended things. They are not physical atoms. The role of the monads is quite different, for they are not only indivisible unities, but also indivisible unifiers. Each monad is a metaphysical atom, dominant over a subset of subordinate monads that it unifies to form with itself what Leibniz calls a ‘corporeal substance’ (To De Volder, 20 June 1703: LV 264-265). Corporeal substances are living, animal-like creatures, comprising the unifying dominant monad – a mind, soul or entelechy – and the subordinate monads that it unites with itself to form the whole living creature. Each subordinate monad is itself dominant over the monads in its own organic body. These dominated monads are in turn dominant over further subordinate monads in their own organic bodies. Thus the universe of monads is a universe of monads whose organic bodies have monads with their organic bodies enfolded within them, to infinity.

A plurality of monads requires that each monad is identifiably distinct from all the others. As indivisible, they cannot be distinguished by their parts, but they can be distinguished by their qualities, namely their perceptions and appetitions. Monads’
perceptions are the means by which they each individually represent the world. Monads’ appetitions are the actions of the monads’ forces that impel them from one perception to the next, ensuring that the monads’ perceptions mirror the changes that occur in bodies as they move and resist one another in accordance with the laws of motion or efficient causes. Because each monad represents the whole world, they cannot be distinguished by the content of their perceptions, but they can be identified by the degrees of confusion or distinctness of their perceptions. This in turn is a result of the appetitive force that lies behind each perceptual state, such that the greater the appetition, the more distinct the resultant perception. Hence, ultimately, it is the degree of each monad’s active force, its essential nature, that serves to distinguish one monad from another and that determines the particular ‘point of view’ from which each monad perceives the world (Principles of Nature and Grace, §3: GP VI 599; AG 207).

Because they are indivisible and partless, the movement from one perception to the next cannot be accounted for in terms of any internal rearrangement of parts or transference of parts from one monad to another. ‘The monads’, as Leibniz famously put it, ‘have no windows through which something can enter or leave’ (Monadology §7: GP VI 607; AG 213). Consequently, every change in a monad must already be contained in its essence from the beginning, constituting a ‘law of the series’ that unfolds its perceptions in sequence and in harmony with the unfolding sequences of perceptions in all other monads. In this way, though there is no actual causal interaction among the monads, the appearance of interaction is maintained by their perfect synchronization:

this concomitance I maintain is like several different bands of musicians or choirs separately playing their parts, and placed in such a way that they do not see and do not even hear each other, though they nevertheless can agree perfectly, each following his own notes, so that someone hearing all of them would find a marvelous harmony there (To Arnauld, 30 April 1687: GP II 95; AG 84).

The ‘interconnection or accommodation of all created things to each other’ (Monadology §56: GP VI 616; AG 220) is one reason why this is the best of all possible worlds. As Leibniz conceives perfection, the way to attain ‘as much perfection as possible’ is to produce as ‘much variety as possible, but with the greatest order possible’ (Monadology §58: GP VI 616; AG 220). This is achieved through the creation of an infinity of monads, each perceiving the same universe, but each perceiving it from its own individual perspective (Monadology §57).

At the time of Leibniz’s death in 1716, the high esteem that he had enjoyed for the greater part of his life had all but disappeared. However, his reputation recovered dramatically on the publication of Latin translations of some of his most important works, including the Monadology, in the decade following his death. Their publication elicited wide and controversial discussion across Europe. By the middle of the eighteenth century Leibniz’s ‘monad’ became a concept of such central importance in German intellectual life that in 1746 Euler wrote that ‘the dispute about monads was so lively and general that… [e]veryone’s conversation fell upon monads everywhere and no one spoke of anything else’ (Cited and translated in Clark, 1999: 446). Nonetheless, it was not until the 1760s that the first two collections of his
writings that revealed the enormous depth of his thought would be published: Rudolf Erich Raspe’s (1765) *Oeuvres philosophiques*, which included Leibniz’s *New Essays* (published for the very first time), and Louis Dutens’ (1768) *Opera Omnia*.

During the earlier part of the century, Leibniz’s philosophy was closely associated with Christian Wolff’s and the latter’s philosophy was labelled by the German professor of philosophy and mathematics Georg Bernhard Bilfinger (1693-1750) as ‘Leibniz-Wolfian’, much to Wolff’s disapproval. Despite this association, there were major differences between the two philosophers. For example, Wolff’s metaphysics was not an austere metaphysics of monads, but rather a form of dualism. However, Wolff’s theory of substance shared a close enough similarity for the concept of the ‘monad’ to become a significant part of the Leibniz-Wolfian vocabulary, as can be seen in Alexander Gottlieb Baumgarten’s famous Leibniz-Wolfian textbook *Metaphysics*, §§392-418.¹ Wolff’s greatest debt to Leibniz was for his theory of pre-established harmony, which Wolff believed was the only satisfactory solution to the problem of the relationship between the mind and the body.

The most historically significant philosophical engagement with Leibniz’s thought during the eighteenth century came from Immanuel Kant. Leibniz’s influence on Kant ran deep and touched almost every area of his philosophy. Yet at no point in Kant’s career could he straightforwardly be regarded as a Leibnizian. Even in his pre-critical days as the author of the *Physical Monadology* (1756) he was profoundly critical of certain characteristic elements of Leibniz’s thought. After having published his *Critique of Pure Reason* twenty-five years later, Kant became well known for having provided the most serious and unavoidable challenges for the pursuit of rationalist metaphysics that it had ever encountered. The crucial error of Leibniz’s rationalist method, Kant argued, was that Leibniz engaged in logical reflection without recognizing the unique role played by sensibility. He, therefore, ‘intellectualised appearances’ (A271/B327). According to Kant, the errors in Leibniz’s system are due to his failure to understand that our appearances are conditioned by sensibility and that if a concept is not applied in intuition, then it lacks objectivity. Although such concepts may have a logical meaning, they have no significance in the application to objects. The use of concepts outside of this relation is, Kant writes, ‘a mere play of imagination or of understanding’ (A239/B298). Therefore, Kant calls his critique of Leibniz ‘the critique of pure understanding’. For Kant, ‘[t]he pure categories, apart from any formal conditions of sensibility, have only transcendental significance; nevertheless they may not be employed transcendentally’ (A248/B305). This means that they have transcendental (idealist) significance insofar as they are the necessary conditions for the possibility of experience, but they have no transcendental (realist) use because they cannot be employed in arguments for the existence of entities that take us beyond appearances.

According to the received view, Kant’s critical revolution put an end to the kind of metaphysics of which the monadology is the example *par excellence*. This volume will challenge this view and provide a far more nuanced version of philosophy’s ‘post-Kantian’ tradition, spanning from the late eighteenth to the early twentieth-century, by bringing to light a rich tradition of new monadologists, many of whom

have been unjustifiably forgotten by contemporary historians of philosophy. Through this complex dialogue, the ‘monadology’ is shown to be a remarkably fecund hypothesis allowing for many possible variations and developments. By focusing on the monadology, therefore, the depth and breadth of the post-Kantian period is exposed in original and previously unexplored ways and the road is laid open for further research.

This guest issue opens with Richard Fincham’s ‘Reconciling Leibnizian Monadology and Kantian Criticism’ in which he discusses some of the first attempts to return to a form of Leibnizian monadology without ignoring the crucial insights of Kant’s critical philosophy. Fincham argues that the Polish Lithuanian philosopher Solomon Maimon (1753-1800) and the German idealist F.W.J. Schelling (1775-1854) both highlight the problematic dualism between the intellect and sensibility at the heart of Kant’s philosophy. By focusing on the spirit rather than the letter of Kant’s work, Maimon and Schelling attempt to reconcile Leibniz and Kant. While Kant, they argue, cannot explain the connection between the concepts of the understanding and intuitions of sensibility, Leibniz is able to overcome the problem of the two-fold nature of cognitive faculties by conceiving both the understanding and sensibility as arising from the same monadic source.

Maimon’s crucial claim is that what Kant conceived as synthetic a priori truths are in fact, insofar as they are in the infinite understanding, analytic truths, and only synthetic truths, insofar as they are appearances in the finite understandings. They are synthetic truths in the latter because of the limitations of the individual’s finite perspective. Just as in the Leibnizian monad, it is its limitations that give rise to sense perceptions and thus differentiate it from God, so too for Maimon, that is, in Kantian language, what is analytic in the infinite appears synthetic in the finite understanding. Fincham shows that Schelling similarly attempts to solve the same Kantian problems through his conception of what he describes as the ‘infinite spirit or Absolute subject’ that produces finite spirits, which, like monads, are windowless perspectives on the Absolute.

The canonical reconstruction of the history of post-Kantian thought focuses on the monistic aspects that found their ultimate realization in the absolute idealism of Hegel. However, there is a less well-known but just as significant story that emphasizes the Leibnizian monadological pluralist aspects that were being developed even by Hegel’s contemporaries, such as Johann Friedrich Herbart (1776-1841) and Bernard Bolzano (1781-1848). Frederick Beiser picks up this later story in his article ‘Herbart’s Monadology’. While many historians of philosophy have followed Hegel by presenting the history of philosophy leading to him from Kant as a smooth trajectory running through Fichte, Schelling up to Hegel himself, Beiser shows that the truth is much less tidy. While Hegel wanted to trace a history that would be completed in his own absolute Idealism, and as such placed greater emphasis on the monist tendencies in the history of philosophy, Beiser questions this neat sanitized version of the history of post-Kantian thought. Focusing on Herbart, he invokes a pluralist tradition running through the same historical periods, stemming not from Spinoza but from Leibniz. Like Maimon, Herbart develops what he calls a ‘critical monadology’ that takes seriously Kant’s critical philosophy but similarly sees a return to the Leibnizian metaphysics as a solution to the critical system’s failures.
Herbart considers his monadology as post-Kantian rather than pre-Kantian because he agrees with Kant’s critique of the rationalist method - especially his denial that existence is a predicate. Whereas for Kant, analysis of experience leads to transcendental idealism, for Herbart, the monadology is discovered through analysis of our experience and its most basic concepts. In keeping with Leibniz, Herbart argues that the rich diverse complexes given in experience must be grounded by simple metaphysical monads, which he calls ‘Reals’. Herbart claims that we cognitively construct space and time from our perceptions of simple things. Therefore, in Herbart’s account of the relationship between appearance and reality, space and time themselves are appearances of monads, understood in Leibnizian fashion as simple and self-preserving beings.

Peter Simons shows that Bolzano’s monadology develops the Leibnizian metaphysics in an even more realist fashion. Bolzano’s is a physical monadology, not unlike that of the early Kant’s. Bolzano’s monads are simple, fundamental, but yet exist in space. Bolzano represents a crucial chapter in the history of monadological metaphysics insofar as he made one of the boldest attempts to construct a physical monadology that could be reconciled with classical physics whilst using the rationalist a priori methodology, even though, as Simons argues here, the attempt was ultimately unsuccessful. The rationalist approach to the monadology is shown to fail, he argues, when the monads are understood purely as physical atoms.

In agreement with Simons, the French monadologists, considered here in papers by Jeremy Dunham and Delphine Antoine–Mahut, believed that a consistent monadology could not be developed using the rationalist a priori method. Nonetheless, the French monadologists argued that Leibniz himself combined both a priori reasoning, on the one hand, with empirical evidence gleaned from introspective examination of the activities of one’s own mind, on the other. However, they maintained that the conclusions Leibniz drew when using the a priori method took him down a path that would, if continued, lead to Spinozistic pantheism and its consequent threats to freedom and individuality, while conversely the conclusions that he drew from the empirical side proved the existence of free individuals. Faced with these opposing and irreconcilable consequences of rationalist and empiricist methodologies, the French monadologists chose to promote the latter. In contrast to the earlier thinkers from the Germanic tradition, they considered Kant’s critical philosophy as a dangerous scepticism rather than a profound philosophical revolution. Controversially, in ‘From Habit to Monads: Félix Ravaissón’s Theory of Substance’, Dunham argues that reading Ravaissón’s (1813-1900) philosophy as a dialogue with the post-Kantian tradition has been one of the major sources for misinterpretation of his work. Instead, Dunham shows that, correctly understood, Ravaissón uses the analysis of habit as an attempt to argue from empirical reflection to a pluralist metaphysics. In Antoine-Mahut’s paper, ‘Reviving Spiritualism with Monads: Francisque Boullier’s Impossible Mission (1839-64)’, we see how this French tradition continued to develop throughout the nineteenth century and why Francisque Boullier (1813-1899) believed that the monadology could be used to provide an alternative both to the passive Cartesian mechanism and to Scholastic animism and therefore to provide a metaphysics genuinely compatible with developments in the life sciences.

Antoine-Mahut makes the broad historiographical point that the way that Leibniz was
understood and interpreted in this period was never as a philosopher in isolation but always in constellation both with his contemporaries Descartes and Stahl and also with the dialogues being developed within the French context itself. While attempts were made to understand Leibniz in his own intellectual context, e.g. in relation to Descartes and Stahl, his views were also regarded as making a significant contribution to the contemporary philosophical scene in nineteenth century France. Politically, it was advantageous to be able to align one’s own philosophy with that of the great Leibniz. Historiographically, of course, recognizing that one’s own reading of the history is itself historically situated calls in to question the very possibility and even desirability of reaching absolute objective truths in matters historical. By reflecting on this historical treatment of the history of philosophy Antoine-Mahut questions whether objectivity is something that could ever be obtained.

In Britain too, Leibniz’s philosophy came to be seen not as an historical relic but as a living system to be worked with and adapted to suit a modern context. Perhaps the most ambitious attempt to develop the theory of monads into a full-blown metaphysical system compatible with the revolutions in both physics and biology that had occurred since Leibniz came from Alfred North Whitehead (1861-1947). As Pierfrancesco Basile shows in his article ‘Learning from Leibniz: Whitehead (and Russell) on Mind, Matter, and Monads’, Whitehead took issue with Leibniz’s substance ontology, subject-predicate logic and with his system of Pre-established harmony. In its place, Whitehead develops an ontology that sees the building blocks of reality as experiential processual units, called ‘actual occasions’. Whitehead himself admits that his theory of actual occasions is a theory of monads, but Whitehead’s monads progress through their mutual creative interaction rather than unfolding from their own substantial essences as do Leibniz’s. Although Basile argues that Whitehead’s attempt to reconstruct this theory in this way was not entirely successful, he nonetheless claims that Whitehead’s philosophy of organism is importantly suggestive for reconsidering the relationship between mind and matter.

Whitehead was not the only British philosopher to construct a theory of monads during the first half of the twentieth century. Herbert Wildon Carr (1857-1931), James Ward (1843-1925), John McTaggart Ellis McTaggart (1866-1925) and Hilda Oakeley (1867-1950) all developed original monadologies. In her paper ‘British Idealist Monadologies and the Reality of Time’, Emily Thomas focuses on McTaggart and Oakeley and their attempts to understand the nature of time within a monadological framework. McTaggart’s arguments for the rejection of the reality of time are well-known, but Oakeley’s critique of McTaggart and ultimate defence of the reality of time are much less so. Oakeley’s main argument again starts from experience and our personal perceptions of temporal passage. Thomas defends Oakeley’s argument and she also shows that Oakeley’s argument is generalizable to all monadologies. Any consistent monadological metaphysical system, Thomas contends, must affirm the existence of time.

What we see in all these philosophers are attempts to engage with the history of philosophy in a way that Paul Lodge calls ‘dialogical history’. That is to say, each of them develops their own philosophical position in dialogue or through dialogue with Leibniz and his texts. In his paper ‘Heidegger on the Being of Monads’, after discussing Martin Heidegger’s (1889-1976) own attempt at dialogical history with Leibniz in his Metaphysical Foundations of Logic, Lodge defends the virtues of a
methodological pluralism in the history of philosophy. The philosophical enterprise needs not only ‘exegetical’ historians of philosophy, but historical philosophers, and dialogical and creative historians of philosophy too, for, as Lodge argues, it is only when all four types of philosopher work together in a mutually collaborative intellectual enterprise that the best use is made of our discipline’s rich history. Furthermore, Lodge’s account of Heidegger’s engagement with Leibniz uncovers a number of non-standard and interesting aspects of Heidegger’s reading of the Monadology from which Leibniz scholars can learn. These include his understanding of the unifying nature of monads, force understood as drive, and the latter’s relationship with perception and appetite. Like a number of the monadologists discussed in this volume, Heidegger emphasizes the importance of Leibniz’s use of introspection for understanding the nature of monads. Importantly, Lodge shows how this focus on introspective methodology can be used to provide Leibniz scholars with hints on how to interpret Leibniz’s own understanding of monads.

What Mogens Lærke finds in Gilles Deleuze’s (1925-1995) relationship with Leibniz is perhaps most aptly situated within the category of ‘creative history of philosophy’. According to Lærke, Deleuze’s Le Pli is not primarily a reading of Leibniz; it is instead a work of aesthetics that draws on an ahistorical reading of Leibniz’s thought as a ‘monadological metaphysics’. In his paper, ‘Five Figures of Folding. Deleuze on Leibniz’s monadological metaphysics’, Lærke offers an exceptionally clear and insightful exposition of Deleuze’s use of Leibniz’s notion of the folds of bodies, of events, and of the monads that provide their logical and existential grounding. Although Lærke provides evidence that Deleuze’s focus on the fold is textually better grounded than the latter would have realized, he is critical of Deleuze’s ‘stubbornly synchronic’ approach to reading Leibniz. Therefore, he does not provide a defence of Deleuze’s reading, but rather he shows through the use of graphic figures that Deleuze’s use of the ‘fold-concept’ captures many of the basic elements of Leibniz’s philosophy in an ‘extraordinarily synthetic way’. Importantly, by doing so Lærke provides the key for Leibniz scholars to understand the specific contribution that Deleuze’s work makes to the scholarship, and at the same time the key for Deleuzians to understand the core insights that Deleuze takes from Leibniz’s work.

Leibniz’s own aesthetics is the theme of the closing paper in this volume. Leibniz composed no treatise on aesthetics and his writings only rarely address the topic of beauty per se. However, his definition of beauty as ‘that, the contemplation of which is pleasant’ (Elements of Natural Law: A VI i 464: L 137) and his account of the perfection of individuals and of the world in terms of the maximization of ordered variety gave rise to Baumgarten’s rationalist aesthetics in the eighteenth century. In the context of contemporary positive aesthetics, it remains highly relevant today. In ‘Leibniz’s Monadological Positive Aesthetics’, Pauline Phemister and Lloyd Strickland argue that the objective beauty of Leibniz’s monadological world, discoverable by natural scientific investigation but ultimately justified theologically by appeal to God’s decision to create the best possible world, constitutes a positive aesthetics that is both clearer and stronger than the secular positive aesthetics advanced in recent years by Allen Carlson. The rich history of the monadology shows that it has—for the last three hundred years—been regarded as a living philosophy, and that it is a remarkably fecund philosophical hypothesis capable of many possible developments without losing its distinctively Leibnizian character. Far from being extinguished by the Kantian critical revolution, therefore, the monadology continues
to have relevance today, and Phemister and Strickland focus on just one area of many in philosophy where it may have a future too.

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