Please cite the Published Version

Strickland, L (D) (2021) Gottfried Wilhelm Leibniz. Oxford Bibliographies - Renaissance and Reformation.

DOI: https://doi.org/10.1093/obo/9780195399301-0359

Publisher: Oxford University Press

Version: Accepted Version

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Gottfried Wilhelm Leibniz

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Introduction

Gottfried Wilhelm Leibniz (1646–1716) was a universal genius, making original contributions to law, mathematics, philosophy, politics, languages, and many areas of science, including what we would now call physics, biology, chemistry, and geology. By profession he was a court counselor, librarian, and historian, and thus much of his intellectual activity had to be fit around his professional duties. Leibniz's fame and reputation among his contemporaries rested largely on his innovations in the field of mathematics, in particular his discovery of the calculus in 1675. Another of his enduring mathematical contributions was his invention of binary arithmetic, though the significance of this was not recognized until the 20th century. These days, a good proportion of scholarly interest in Leibniz is focused on his philosophy. Among his signature philosophical doctrines are the pre-established harmony, the theory of monads, and the claim that ours is the best of all possible worlds, which forms the central plank of his theodicy. For Leibniz, philosophy was not the discovery of deep truths of interest only to other philosophers, but a practical discipline with the means to increase happiness and well-being. Philosophical truths, he believed, revealed the beauty and rational order of the universe, and the justice and wisdom of its creator, and accordingly

could inspire contentment and peace of mind. Leibniz's other intellectual projects were likewise geared toward the improvement of the human condition. He lobbied tirelessly for the establishment of scientific societies, devised measures to improve public health, and was actively engaged in projects to unite the churches and so end the religious strife that marred the Europe of his day. He was also engaged in politics for much of his career, and often took on a diplomatic role, sometimes officially and other times not. In the political sphere, Leibniz did not wield true power but was a man with influence, obtained in no small part by his cultivation of relationships with leaders and sovereigns both inside and outside Germany. The sheer range of Leibniz's interests, projects, and activities can make him a difficult figure to study, and the vast quantity of his writings only compounds the problem (around fifty thousand of his writings survive). Nevertheless, even a sampling of Leibniz's work is enough to get a sense of his vision, originality, and intellectual depth, and good secondary literature will only enhance this. The items in this bibliography were chosen with this in mind.

General Overviews

Introductory works on Leibniz typically focus on providing an outline of his philosophy, that is, his metaphysics, epistemology, ethics, and his philosophical theology. Jolley 2020 provides a fine overview of all of these areas, and should be high on the list of any new student, though those who read French are also advised to consult Belaval 2005. Perkins 2007 and Woolhouse 2010 are worthwhile choices also, though both are shorter and thus less detailed. Look 2013 provides a solid introduction to Leibniz's metaphysics, epistemology, and philosophical theology, but does not discuss ethics. Arthur 2014 has an even broader range, covering theology, mathematics, and physics in addition to philosophy. Brown and Fox 2006 is an A-Z of Leibniz's philosophy, and those unfamiliar with Leibniz—or early modern philosophy in general—will benefit from having it to hand when reading Leibniz's own writings or even works about him. Those wanting a more rounded introduction to Leibniz should consult Antognazza 2018, which takes a multidisciplinary approach to its subject.

Antognazza, Maria Rosa, ed. *The Oxford Handbook of Leibniz*. Oxford: Oxford University Press, 2018.

A monumental collection of 42 introductory essays covering a wide range of Leibniz's intellectual and practical activities, including many that are often not covered in depth--if at all--in introductory works, such as Leibniz as jurist, historian, and librarian. A helpful guide for those looking to get to grips with the range of Leibniz's interests and contributions.

Arthur, R. T. W. Leibniz. Cambridge, UK: Polity, 2014.

This book takes an avowedly "genetic" approach to Leibniz's philosophy, seeking to explicate it by investigating its origins. This leads to the particular problems that Leibniz sought to solve both in philosophy and in other disciplines such as theology, mathematics, and physics. Accordingly, Arthur's book

is broader in its coverage of Leibniz's philosophy than either Perkins $\underline{2007}$ or Woolhouse $\underline{2010}$. It is especially strong on physics.

Belaval, Yvon. Leibniz: Initiation à sa philosophie. Paris: Vrin, 2005.

Originally published in 1952, and revised through six editions, Belaval's book is an admirably clear introduction to Leibniz that has retained its value. The first part of the book, amounting to around two-thirds of the total, is devoted to telling the story of Leibniz's life and the development of his thought. The second part outlines his philosophical system starting with God and ending with Leibniz's system of morality.

Brown, Stuart, and N. J. Fox. Historical Dictionary of Leibniz's Philosophy. Oxford: Scarecrow, 2006.

Contains substantial entries on an A-Z of technical terms found in Leibniz's philosophy as well as on relevant background ideas and contemporary thinkers. That, and the huge bibliography of primary and secondary literature, makes this a good companion to anyone new to Leibniz and his thought.

Jolley, Nicholas. Leibniz. New York: Routledge, 2020 (2ed.).

A clear, accessible, and highly engaging introduction to Leibniz's philosophical thought, covering classic topics such as substance, body, mind, pre-established harmony, free will and contingency, and evil. The book also contains a chapter devoted to Leibniz's ethics and politics, and another on his legacy and influence. An ideal starting point for students and non-specialists.

Look, Brandon C. "Gottfried Wilhelm Leibniz." Stanford Encyclopedia of Philosophy, 2013.

A useful introduction focusing on Leibniz's metaphysics, epistemology, and philosophical theology. Look very helpfully identifies and explains the various fundamental principles that Leibniz developed and utilized in his writings, namely the principles of the best, of contradiction, of sufficient reason, of the identity of indiscernibles, of continuity, and the predicate-in-notion principle.

Perkins, Franklin. Leibniz: A Guide for the Perplexed. London: Continuum, 2007.

A short introductory work that covers rather more of Leibniz's philosophy than one might expect given the headings of the three main chapters ("God and the Best Possible World," "Substances," and "Rational Minds"). Perkins focuses principally on trying to make Leibniz's ideas intelligible to the 21st-century student, and his sympathetic exposition coupled with his general lack of criticism gives this book the feel of a general apology for Leibniz.

Woolhouse, Roger. Starting with Leibniz. London: Continuum, 2010.

Covers much the same ground as Perkins 2007 but with a better organization of chapters. Woolhouse's exposition of Leibniz's ideas is admirably clear. However, it is off-putting to see Leibniz's system described as a "fairy tale" no fewer than twelve times over the course of the book (the fact that "fairy tale" is always put within quotation marks does little to mitigate this).

Textbooks

The primary focus of the textbooks listed below is Leibniz's philosophy, which covers his metaphysics, epistemology, ethics, and philosophical theology, and most cover his natural philosophy also. Those new to Leibniz would be advised to start with Look 2014 and then Jolley 1995 as both offer a series of survey articles on a wide range of areas of Leibniz's philosophy, as well as essays on the philosophical background at the time and the later reception of Leibniz's thought. Lodge and Strickland 2020 contains a series of introductory essays, each one focused on one of Leibniz's most important philosophical writings or correspondences, while Savile 2000 is focused on one specific classic text, the "Monadology" (1714), and seeks to guide the reader through the various ideas and claims found therein.

Jolley, Nicholas, ed. *The Cambridge Companion to Leibniz*. Cambridge, UK: Cambridge University Press, 1995.

A solid collection of thirteen essays that together survey many of the important topics in Leibniz's philosophical thought. Several of the essays have become classics in their own right, most notably Daniel Garber's "Leibniz: Physics and Philosophy" and Catherine Wilson's "The Reception of Leibniz in the Eighteenth Century," though the quality is high throughout.

Lodge, Paul, and Lloyd Strickland, eds. *Leibniz's Key Philosophical Writings: A Guide*. Oxford: Oxford University Press, 2020.

This volume serves as a useful guide to eleven of Leibniz's key philosophical writings, each of which is treated in a separate chapter devoted to elucidating the principal ideas and providing the necessary background to put them in context. The chapters cover youthful works like "Confessio philosophi," seminal middle-period writings like "Discourse on Metaphysics," and masterpieces of his maturity like the *Theodicy* and the "Monadology." Also covered are three of his most important philosophical correspondences, with Antoine Arnauld, Burcher De Volder, and Samuel Clarke.

Look, Brandon C., ed. The Bloomsbury Companion to Leibniz. London: Bloomsbury, 2014.

A collection of seventeen specially-written survey articles covering the main areas of Leibniz's philosophy. The essays on Leibniz's reactions to a number of his key contemporaries—one each on Descartes, Hobbes, Spinoza, and Malebranche—are especially useful for understanding the development of his thought and some of its stimuli

Savile, Anthony. *Routledge Philosophy Guidebook to Leibniz and the Monadology.* London and New York: Routledge, 2000.

Savile's book is a student guide to "The Monadology" (1714), one of Leibniz's most important philosophical essays and also one of his most difficult. In the book, Savile guides the reader through the main themes and doctrines of the "Monadology." In doing so, he remains focused on providing an introduction to the text and so steers clear of the scholarly disputes about its interpretation and place in Leibniz's philosophy.

In-Depth Studies

The in-depth studies detailed here offer novel and sometimes challenging lines of interpretation that have shaped the way students and scholars have approached Leibniz. Russell 2002 is a classic study that every student of Leibniz should read even though it advances an interpretation that is questionable. It is also often overly critical both of Leibniz's philosophy and Leibniz's character. Both Adams 1994 and Rutherford 1995 are more sympathetic in tone. They are also both rich in detailed analysis, making them useful starting points for advanced study. Riley 1996 examines the philosophical and theological ideas at the heart of Leibniz's political and moral thought.

Adams, Robert Merrihew. Leibniz: Determinist, Theist, Idealist. Oxford: Oxford University Press, 1994.

An intricate study of a number of core parts of Leibniz's philosophy. In addition to expounding and interpreting Leibniz's views on determinism and contingency, God, and substance, Adams also assesses their philosophical merit. While much of his assessment is sympathetic, Adams also criticizes Leibniz's thinking on certain matters, for example on the ontological argument. A monumental work that continues to enlighten and divide scholars.

Riley, Patrick. Leibniz' Universal Jurisprudence. Cambridge, MA: Harvard University Press, 1996.

A highly readable and erudite study of the roots of Leibniz's notion of justice and its practical upshot. Riley argues that in taking justice to be the charity of the wise, Leibniz fused together ideas from Platonism and St. Paul. The book is not merely expository but critical as well, with Riley ultimately concluding that Leibniz's moral theory sits uneasily with some of his metaphysical commitments.

Russell, Bertrand. *A Critical Exposition of the Philosophy of Leibniz*. London and New York: Routledge, 2002.

Originally published in 1900, Russell's book had a profound influence on Anglo-American Leibniz scholarship for much of the 20th century. Russell sought to emphasize Leibniz's logical work, and hypothesized that Leibniz's philosophical system was deducible from just five premises. Scholars now believe this hypothesis to be mistaken, and Russell's book should be approached with caution, though it remains a useful source of information about the logical aspects of Leibniz's philosophy.

Rutherford, Donald. *Leibniz and the Rational Order of Nature*. Cambridge, UK: Cambridge University Press, 1995.

Rutherford puts theodicy at the heart of Leibniz's philosophy, and argues that his metaphysical theories were developed in order to support the aims of his theodicy. Rutherford also argues that neither theodicy nor metaphysics were mere theoretical pursuits for Leibniz, and that he saw both as having a practical payoff in terms of improving the human condition. A book that repays careful study.

Works (Original Language)

Leibniz did not write a magnum opus, preferring instead to write short essays, draft papers, and letters, though he did also write a number of books. Even now, more than three hundred years after his death, not all of Leibniz's writings have been published, though eventually all (or at least most) will be in Leibniz 1923—, the ongoing critical edition of his writings. Once that edition is complete, it will make redundant previous editions of Leibniz's writings, though since that day is still some decades away, those looking to read original-language versions of Leibniz's writings will from time to time still need to consult other editions. Leibniz 1860–1875 and Leibniz 1864–1884 contain a good many of Leibniz's political writings. Leibniz 2008 focuses on philosophical writings, while Leibniz 1948 includes many texts not found in those two editions. Leibniz 1954 is currently the definitive source for two of Leibniz's classic metaphysical works, and Leibniz 1991 for the important correspondence with Samuel Clarke. Leibniz 1971 contains a large quantity of Leibniz's mathematical work, while Leibniz 1990 is very broad in scope, covering (among others) theology, logic, metaphysics, physics, medicine, natural history, mathematics, philosophy, history, jurisprudence, and philology. It is worth noting that Leibniz wrote principally in Latin, French, and German, though as he was able to read English, Dutch, and Italian, some of his correspondents wrote to him in those languages.

Leibniz, Gottfried Wilhelm. *Oeuvres de Leibniz*. 7 vols. Edited by Louis Foucher de Careil. Paris: Firmin-Didot, 1860–1875.

This edition focuses on Leibniz's political writings, including those concerned with church unification. Some of the texts that Leibniz wrote in Latin or German are here presented in a French translation as well as in the original language.

Leibniz, Gottfried Wilhelm. *Die Werke von Leibniz*. 11 vols. Edited by Onno Klopp. Hanover, Germany: Klindworth, 1864–1884.

The first six volumes of this edition present a number of Leibniz's historical and political writings, while the remaining five collect together Leibniz's correspondences with Electress Sophie of Hanover (Vols. 7–9), Queen Sophie Charlotte of Prussia (Vol. 10), and Princess Caroline (Vol. 11). Unfortunately, Klopp omitted items from each of these correspondences, so none is quite complete here. Also, there are transcription errors throughout, so readers should approach with caution.

Leibniz, Gottfried Wilhelm. *Sämtliche Schriften und Briefe*. Edited by Berlin-Brandenburgische Akademie der Wissenschaften. Berlin: Akademie Verlag, 1923–.

The critical edition of Leibniz's writings, though not yet complete. There are multiple volumes arranged in eight series: series 1 contains Leibniz's general, political, and historical correspondence, series 2 his philosophical correspondence, series 3 his mathematical, scientific, and technological correspondence, series 4 his political writings, series 5 his historical and linguistic writings, series 6 his philosophical writings, series 7 his mathematical writings, and series 8 his scientific, medical, and technical writings. Some volumes available online:

Leibniz, Gottfried Wilhelm. *Textes inédits: D'après les manuscrits de la Bibliothèque provinciale de Hanovre.* 2 vols. Edited by Gaston Grua. Paris: Presses Universitaires de France, 1948.

This edition contains many texts not found in other editions of Leibniz's writings, along with helpful annotations by the editor. Reflecting the interests of its editor, this edition focuses on philosophical, theological, and juridical writings.

Leibniz, Gottfried Wilhelm. *Principes de la nature et de la grace fondés en raison – Principes de la philosophie ou Monadologie*. Edited by André Robinet. Paris: Presses Universitaires de France, 1954.

To date, the best source for two of Leibniz's seminal late writings, namely the "Principles of nature and grace" and "Monadology" (both written 1714). While both writings can be found, for example, in Leibniz 2008, the serious student should instead consult Robinet's edition, which presents the different drafts of these writings, and records all the variations and deletions. A vital source for those interested in these texts.

Leibniz, Gottfried Wilhelm. *Leibnizens Mathematische Schriften*. 7 vols. Edited by C. I. Gerhardt. Hildesheim, Germany: Olms, 1971.

A solid collection of some of Leibniz's key mathematical writings, including both papers and letters. Originally published in 1859, it will eventually be superseded by series 3 and 7 of Leibniz 1923–.

Leibniz, Gottfried Wilhelm. *Opera Omnia*. 6 vols. Edited by Louis Dutens. Hildesheim, Germany: Olms, 1990. Originally published in 1768. Still a useful edition with a very broad range. Volume 1 contains theological writings; Volume 2 contains work on logic and metaphysics, physics, medicine, botany, natural history, and the arts. Volume 3 focuses on mathematics, while Volume 4 collects together writings on philosophy, China, history, and jurisprudence. Volumes 5 and 6 contain writings on philology, while Volume 6 also features works on etymology.

Leibniz, Gottfried Wilhelm. *Correspondance Leibniz-Clarke, présentée d'après les manuscrits originaux des bibliothèques de Hanovre et de Londres*. Edited by André Robinet. Paris: Presses Universitaires de France, 1991.

A critical edition of the important Leibniz-Clarke correspondence, transcribed from the original manuscripts. In addition to the letters exchanged between Leibniz and Clarke, Robinet's edition also features dozens of other letters that Leibniz either wrote or received between April 1714 and October 1716, which together shed light on Leibniz's side of the correspondence. A useful introductory essay helps to explain the circumstances that led up to the correspondence.

Leibniz, Gottfried Wilhelm. *Die philosophischen Schriften*. 7 vols. Edited by C. I. Gerhardt. Hildesheim, Germany: Olms, 2008.

A reprint of an edition originally published 1875–1890. Gradually being superseded by Leibniz 1923–, though it is still the only published source for a number of writings included therein, and is likely to remain so for some decades to come. This is unfortunate since Gerhardt's transcriptions are sometimes not reliable.

English Translations

Most English-language anthologies of Leibniz's work focus on his philosophical writings. The most substantial of these is Leibniz 1969, though Leibniz 1989 and Leibniz 1998a are better choices as student texts on account of their size and price. Leibniz 1973 and Leibniz 1997 contain material not available elsewhere in English. Translations of two of Leibniz's most notable book-length works, namely the New Essays on Human Understanding and the Theodicy, can be found in Leibniz 1996 and Leibniz 1985 respectively; despite their shortcomings, these titles should be in the library of any serious student. Leibniz 1998b contains a selection of Leibniz's political writings. Other English-language editions of Leibniz's writings are discussed in the relevant sections below; see the sections Early Life and Thought, Correspondence and Correspondents, Mathematics, Natural Philosophy, Religion, and China.

Leibniz, Gottfried Wilhelm. *Philosophical Papers and Letters*. Edited by Leroy E. Loemker. Dordrecht, The Netherlands: D. Reidel, 1969.

Originally published in 1956, and still the most substantial collection of Leibniz's philosophical writings in English. A vital work for any English-speaking student of Leibniz, not just because of the quantity of material it contains, but also because of its selection of texts, which is broader both chronologically and topically than many English-language editions.

Leibniz, Gottfried Wilhelm. *Philosophical Writings*. Edited by G. H. R. Parkinson. Translated by Mary Morris and G. H. R. Parkinson. London: Everyman, 1973.

Originally published in 1934 by Mary Morris, and later revised by G. H. R. Parkinson with some new content. Given Parkinson's prowess in logic and metaphysics, it is no surprise that this revised edition focuses on Leibniz's logical and metaphysical work, and it includes a handful of texts which cannot be found in any other English edition of Leibniz's writings.

Leibniz, Gottfried Wilhelm. *Theodicy: Essays on the Goodness of God, the Freedom of Man and the Origin of Evil.* Edited by Austin Farrer. Chicago: Open Court, 1985.

A classic text in which Leibniz argues for the conformity of faith and reason and defends the justice of God. Unfortunately, this edition does not contain the *Causa Dei*, a highly focused summary of the argument of the *Theodicy*, often regarded as its appendix. Another drawback is that Leibniz's many Greek and Latin quotations are left untranslated, so readers without those languages may be at a loss from time to time.

Leibniz, Gottfried Wilhelm. *Philosophical Essays*. Edited by Roger Ariew and Daniel Garber. Indianapolis: Hackett, 1989.

An inexpensive edition with a good selection of texts, especially strong in its coverage of Leibniz's dynamics and natural philosophy. Often used as a student text, and a good choice for anyone wanting to sample Leibniz's philosophical writings.

Leibniz, Gottfried Wilhelm. *New Essays on Human Understanding*. Edited by Peter Remnant and Jonathan Bennett. Cambridge, UK: Cambridge University Press, 1996.

Complete translation of Leibniz's point-by-point response to John Locke's *Essay concerning Human Understanding*. The *New Essays* was written between 1703 and 1705, but not published in Leibniz's lifetime. It is written as a dialogue between Philalethes (who speaks for Locke, often quoting Locke verbatim) and Theophilus (who speaks for Leibniz). The Remnant and Bennett translation has its detractors, but is quite serviceable for the most part.

Leibniz, Gottfried Wilhelm. *Leibniz's "New System."* Edited by R. S. Woolhouse and Richard Francks. Oxford: Clarendon, 1997.

A useful book focused on Leibniz's famous 1695 essay, "New System of the Nature and the Communication of Substances," in which he made public his doctrine of the pre-established harmony for the first time. This book contains translations of the essay (both the published version and the draft) and of some of the related articles and letters written in the years following its publication.

Leibniz, Gottfried Wilhelm. *Philosophical Texts*. Edited by Richard Francks and R. S. Woolhouse. Oxford: Oxford University Press, 1998a.

Contains a good selection of philosophical writings (focused principally on metaphysics) and a lengthy introductory essay to help orientate the reader. A good choice as a student text.

Leibniz, Gottfried Wilhelm. *Political Writings*. Edited by Patrick Riley. Cambridge, UK: Cambridge University Press, 1998b.

Although only a tiny fraction of Leibniz's voluminous political writings are included here, this anthology still succeeds in showing that Leibniz was an adept moral and political thinker. The book includes a translation of Leibniz's brutal satire of Louis XIV, "Mars Christianissimus," written at the height of the Turkish siege of Vienna in 1683.

Biographies

The sheer range of Leibniz's intellectual pursuits is a biographer's nightmare, but Antognazza 2009 is up to the task. Less broad in scope is Aiton 1985, which is still a good alternative choice for those wanting an overview of Leibniz's life and work. Fontenelle 1812 is a much shorter biography written by a contemporary of Leibniz's; it covers much, but since the full range of Leibniz's activities and contributions were not known until much later, it is far from complete. Although not a traditional biography, Kempe 2016 is helpful for the light it sheds on Leibniz's intellectual pursuits in the last year of his life.

Aiton, E. J. Leibniz: A Biography. Bristol, UK: Adam Hilger, 1985.

An account of Leibniz's life and activities that sacrifices narrative flow in favor of descriptive accuracy. Given Aiton's background in mathematics it is perhaps not surprising that he writes more confidently about his subject matter when dealing with Leibniz's mathematics than with his philosophy. Although now overshadowed by Antognazza 2009, an altogether more impressive and well-rounded biography, Aiton's book is still worthy of study.

Antognazza, Maria Rosa. Leibniz: A Biography. Cambridge, UK: Cambridge University Press, 2009.

A monumental work, impressive in its depth and coverage. Antognazza details the historical and political context of Leibniz's work, and constructs an engaging and illuminating narrative that threads through his many projects and activities, many of which are outlined here in some detail. Antognazza seeks to show the unifying theme behind Leibniz's various endeavors was the improvement of humankind and the promotion of happiness.

Fontenelle, Bernard le Bouvier de. "Éloge de M. Leibnitz." In *Choix d'éloges français les plus estimés*. Paris: D'Hautel, 1812.

Originally written the year after Leibniz's death, Fontenelle's eulogy is a biographical sketch of Leibniz's life and intellectual activities, enlivened by various anecdotes. It begins with Leibniz's political, historical, and legal work, before outlining his natural philosophy, mathematics, metaphysics, and theology. By not focusing exclusively on philosophy, Fontenelle's eulogy offers a clearer picture of Leibniz's interests and activities than is to be found in many overviews.

Kempe, Michael, ed. 1716 – Leibniz' letztes Lebensjahr. Hanover, Germany: Gottfried Wilhelm Leibniz Bibliothek, 2016.

Although not a traditional biography, this collection of essays is important for the insight it sheds on Leibniz's activities in 1716, the last year of his life. These include the priority dispute with Newton, correspondences with Leeuwenhoek, Clarke, and Caroline of Ansbach (who was at that time Princess of Wales), and his never-to-be-completed history of the Guelph House. Two of the essays are in English, the rest are in German.

Journals

There are two journals devoted to Leibniz: <u>Studia Leibnitiana</u> and the <u>Leibniz Review</u>. Articles on Leibniz may also be found in journals that focus on the history of philosophy, history of science, and intellectual history. Even some general philosophical journals sometimes contain articles about Leibniz.

The Leibniz Review. 1991-.

Launched in 1991 as *The Leibniz Society Review* and renamed *The Leibniz Review* in 1999. One issue is published annually, containing articles, book reviews, and sometimes English translations of Leibniz texts. The journal does not consider unsolicited work, so articles are usually submitted at the invitation of the editor.

Studia Leibnitiana. 1969-.

The longest-running of the two journals devoted to Leibniz, having been established in 1969. It is published twice a year, and contains articles and book reviews in English, French, or German. In addition, special issues ("Sonderhefte") containing articles on a particular aspect of Leibniz's work are published frequently, sometimes two or three times a year.

Early Life and Thought

Leibniz's earliest writings were on law and philosophy. Artosi, et al. 2013 examines Leibniz's master's and doctoral dissertations, which were focused on law, and provide translations of the texts also. Leibniz 1992 and Leibniz 2005 contain a number of Leibniz's youthful philosophical writings, on metaphysics and philosophical theology respectively, many of which were written during the time he spent in Paris between 1672 and 1676. Stewart 2007 offers an account of Leibniz's encounter with Spinoza in 1676, although it is quite speculative at times. Rescher 2013 is more down-to-earth, dealing with the end of Leibniz's stay in Paris and the beginning of his career in Hanover, including his intellectual pursuits during this time. For background information on Leibniz's early philosophy, the reader should consult Brown 1999 and Kulstad, et al. 2009 (in that order).

Artosi, Alberto, Bernardo Pieri, and Giovanni Sartor, eds. *Leibniz: Logico-Philosophical Puzzles in the Law.* Dordrecht, The Netherlands: Springer, 2013.

This volume presents English translations of the dissertations Leibniz submitted for his master's and doctoral degrees (in 1664 and 1666 respectively). In his doctoral dissertation, Leibniz considers puzzles cases in the law, that is, those thought to be too difficult to resolve, and argues that even the most difficult cases can in fact be resolved by proper application of the law. The editors' introduction and annotations are excellent.

Brown, Stuart, ed. The Young Leibniz and His Philosophy. Dordrecht, The Netherlands: Kluwer, 1999.

An excellent collection of essays on the development of Leibniz's philosophy over the first thirty years of his life, that is, up to 1676. Two of the essays provide background information about Leibniz's early life and his teachers, while the remaining eleven are concerned with particular aspects of Leibniz's early thought, ranging over mathematics, ethics, logic, metaphysics, and natural philosophy.

Kulstad, Mark, Mogens Laerke, and David Snyder, eds. *The Philosophy of the Young Leibniz. Studia Leibnitiana Sonderhefte 35.* Stuttgart: Franz Steiner, 2009.

The essays in this volume cover various aspects of Leibniz's thought up to 1686, including infinity and infinitesimals, body, animals, freedom, and divine concurrence. Many of the essays are concerned with the evolution of Leibniz's thinking, and there are several that focus on Spinoza's influence on Leibniz.

Leibniz, Gottfried Wilhelm. *De Summa rerum: Metaphysical Papers, 1675–1676.* Edited by G. H. R. Parkinson. New Haven, CT: Yale University Press, 1992.

Contains a number of early draft writings mostly about God and the mind, providing a fascinating glimpse into the development of Leibniz's philosophical system. Some of the papers were written around the time of Leibniz's meeting with Spinoza in November 1676, and include ideas that they had discussed. Many of the texts lack polish and can be difficult to follow, but Parkinson's introductory essay and annotations are enormously helpful.

Leibniz, Gottfried Wilhelm. *Confessio Philosophi: Papers concerning the Problem of Evil, 1671–1678.* Edited by Robert C. Sleigh Jr. New Haven, CT: Yale University Press, 2005.

This volume contains nine writings from 1671 to 1678, with the problem of evil as the unifying theme. However, several of the writings address other topics as well, such as the attributes of God, free will, and middle knowledge. The texts are quite difficult, and not for the novice, but are important for understanding the development of Leibniz's thought.

Rescher, Nicholas. "Leibniz Finds a Niche (1676–1677)." In *On Leibniz*. By Nicholas Rescher, 219–255. Pittsburgh: University of Pittsburgh Press, 2013.

An extremely informative essay on how Leibniz came to be employed at the Court of Hanover. Contains much historical detail about Leibniz's post as a *Hofrat* (court counselor) along with his duties as librarian. Rescher also relates some of the wide-ranging intellectual activities Leibniz busied himself with during his first year in the post, including philosophy, theology, technology and mathematics.

Stewart, Matthew. *The Courtier and the Heretic: Leibniz, Spinoza, and the Fate of God in the Modern World: The Secret Encounter between Leibniz and Spinoza That Defines the Modern World.* New York: W. W. Norton, 2007.

Breezy and highly readable account of Leibniz's personal encounter with Spinoza in 1676 as well as the background and aftermath. However, the inaccuracies and level of speculation make this a book to be approached with caution. While Leibniz was certainly influenced by Spinoza, Stewart's suggestion that Leibniz's philosophy was ultimately just a modified version of Spinoza's is overdrawn and unconvincing.

Correspondence and Correspondents

Leibniz's philosophical correspondence is vast, and is so rich in its content that no serious student of Leibniz can afford to ignore it. Those new to Leibniz should start with Lodge 2004, which contains information on many of Leibniz's correspondences. Leibniz 2011 gathers the philosophical correspondence between Leibniz, Electress Sophie, and Queen Sophie Charlotte, which is very accessible. Leibniz's correspondence with Antoine Arnauld is a classic in philosophy; the texts can be found in Leibniz 2016 while Sleigh 1990 serves as a good companion on account of its detailed analysis. Other important philosophical correspondences are those with Bartholomew Des Bosses and Burcher De Volder, the texts of which can be found in Leibniz 2007 and Leibniz 2013 respectively. Vailati 1997 is an in-depth study of Leibniz's correspondence with Samuel Clarke, the texts of which can be found in Leibniz 1969 under English Translations and Leibniz 1991 under Works (Original Language). Also worth noting is Leibniz 2015 under China, an edition of Leibniz's correspondence with Joachim Bouvet, important for understanding his views on China.

Leibniz, Gottfried Wilhelm. *The Leibniz-Arnauld Correspondence: With Selections from the Correspondence with Ernst, Landgrave of Hessen-Rheinfels.* Edited Stephen Voss. New Haven, CT: Yale University Press, 2016.

A solid edition of one of Leibniz's most philosophically significant correspondences, especially useful for understanding his idea that the concept of an individual substance is complete, containing everything that can be truly predicated of it, whether past, present, or future. The edition focuses on the letters written between 1686 and 1690 and thus is not quite complete, omitting Leibniz's earliest letter to Arnauld from 1671.

Leibniz, Gottfried Wilhelm. *The Leibniz–Des Bosses Correspondence*. Edited by Brandon C. Look and Donald Rutherford. New Haven, CT: Yale University Press, 2007.

A selection of just over half of the 130 letters exchanged between Leibniz and Bartholomew Des Bosses between 1706 and 1716. The correspondence is notable for Leibniz's introduction of the idea of a "substantial bond" to explain how the dominant monads and those of a body could form a unity. That and the other topics of the correspondence are discussed in detail in the editors' lengthy and illuminating introductory essay.

Leibniz, Gottfried Wilhelm. *Leibniz and the Two Sophies: The Philosophical Correspondence*. Edited and translated by Lloyd Strickland. Toronto: University of Toronto Press, 2011.

Contains all of the philosophically important material from the correspondence between Leibniz and Electress Sophie of Hanover, and her daughter, Queen Sophie Charlotte of Prussia. The correspondence is notable for Leibniz's accessible exposition of his views on topics such as the nature and operation of the mind, innate knowledge, the afterlife, ethics, and human nature. The correspondence also contains the only known philosophical writings by Sophie and Sophie Charlotte.

Leibniz, Gottfried Wilhelm. *The Leibniz–De Volder Correspondence*. Edited by Paul Lodge. New Haven, CT: Yale University Press, 2013.

The correspondence between Leibniz and Burcher De Volder, which occurred between 1698 and 1706, is important for understanding Leibniz's mature metaphysics and natural philosophy. De Volder's attempts to defend a broadly Cartesian metaphysic draw Leibniz's fire, and eventually prompt Leibniz to outline his own doctrine of monads. Lodge's introductory essay offers a great deal of insight into the exchange and the light it throws on Leibniz's philosophy.

Lodge, Paul, ed. Leibniz and his Correspondents. Cambridge, UK: Cambridge University Press, 2004.

Each essay in this book focuses on Leibniz's correspondence with a particular figure, or in one case (the Jesuits in China) a group of them. While readers may inevitably be drawn to the essays concerning Leibniz's exchanges with heavyweight thinkers such as Arnauld, Wolff, and Clarke, those focusing on his correspondence with lesser-known figures, such as Simon Foucher, Lady Masham, and Caroline, Princess of Wales, should not be neglected.

Sleigh, Robert C., Jr. *Leibniz and Arnauld: A Commentary on Their Correspondence*. New Haven, CT: Yale University Press, 1990.

A richly detailed study of an important correspondence, the texts of which can be found in Leibniz 2016. Sleigh provides a good explanation of the different notions of substance that seem to be at play in

Leibniz's side of the exchange, and also shows the theological aims that motivated the development of key parts of Leibniz's metaphysics.

Vailati, Ezio. Leibniz and Clarke: A Study of Their Correspondence. Oxford: Oxford University Press, 1997.

A thematic analysis of the main points of dispute in the short-lived correspondence between Leibniz and Newton's friend and disciple, Samuel Clarke, which occurred in 1715 and 1716. Across six chapters Vailati details the exchanges on God, the soul, free will, space and time, miracles and nature, and matter and force. An excellent study of an important correspondence.

Mathematics

Leibniz 1989 contains a series of texts relating to Leibniz's development of the calculus; English translations of some of these can be found in Leibniz 2005. Bardi 2006 is a popular account of the priority dispute while Meli 1993 is a scholarly work on Leibniz's responses to Newton's work more generally. Both Goethe, et al. 2015 and Goldenbaum and Jesseph 2008 show how the calculus shaped Leibniz's philosophical thought. Connections between other aspects of Leibniz's mathematics and his philosophy are explored in de Risi 2007 and Breger 2016. For all its flaws, Zacher 1973 is still the best source for information regarding Leibniz's invention of binary arithmetic.

Bardi, Jason Socrates. *The Calculus Wars: Newton, Leibniz, and the Greatest Mathematical Clash of All Time*. New York: Thunder's Mouth, 2006.

A highly readable account of the priority dispute between Newton and Leibniz. Bardi provides a lot of background information on the two men and their activities, and charts the increasingly bitter feud between them. The book contains only the barest of sketches of the calculus itself, however. Those wanting more detail of the mathematics of the calculus should look at Leibniz 2005.

Breger, Herbert. *Kontinuum, Analysis, Informales – Beiträge zur Mathematik und Philosophie von Leibniz.*Berlin and Heidelberg, Germany: Springer, 2016.

An impressive collection of sixteen essays focused on various aspects of Leibniz's mathematics and its role within his philosophy and physics. Several of the essays concern the relationship between mathematics and beauty in Leibniz's thought, while others cover more traditional ground, such as the continuum and the role of analysis. Seven of the essays are in English, one in French, and the remainder in German.

De Risi, Vincenzo. *Geometry and Monadology: Leibniz's Analysis Situs and Philosophy of Space*. Basel, Switzerland, and Boston: Birkhäuser, 2007.

The first third of the book shows Leibniz's development of a notion of space that is constituted by points but not composed by them, while the remainder is devoted principally to investigating the impact of this new notion on mathematics, physics, and even metaphysics. De Risi argues that although Leibniz's monads

are not situated (i.e., in a place), their non-geometrical relations are represented as situation in their phenomenal expressions of each other.

Goethe, Norma B., Philip Beeley, and David Rabouin, eds. *G. W. Leibniz, Interrelations between Mathematics and Philosophy.* Dordrecht, The Netherlands: Springer, 2015.

A collection of essays which aim to show that Leibniz's philosophy did not develop independently of his mathematical thought but rather that there was mutual influence between them. Many of the essays concern Leibniz's discussions of infinity, and especially the notions of the infinitely large or infinitely small, both of which play a key role in his natural philosophy and metaphysics.

Goldenbaum, Ursela, and Douglas Jesseph, eds. *Infinitesimal Differences: Controversies between Leibniz and His Contemporaries.* Berlin: de Gruyter, 2008.

A collection of essays concerned with the nature and foundations of Leibniz's infinitesimal calculus and its implications for his philosophical thought, in particular the physics of force and law of continuity. Many of the essays are technically challenging.

Leibniz, G. W. *La naissance du calcul differéntiel. 26 articles des Acta eruditorum.* Edited by Marc Parmentier. Paris: Vrin, 1989.

A fine collection of twenty-six of the papers Leibniz published in the journal *Acta eruditorum* that together show the development of the infinitesimal calculus and the uses to which Leibniz put his new method. Key papers on squaring the circle, algebraic and transcendental curves, and on what is often thought to be the fundamental theorem of the calculus, are all here, presented in French translation.

Leibniz, Gottfried Wilhelm. *The Early Mathematical Manuscripts of Leibniz*. Edited by J. M. Child. Mineola, NY: Dover, 2005.

Reprint of a book originally published in 1919. Presents a series of texts from the 1670s in which Leibniz gradually works out the calculus. Also included is a translation of "Historia et origo calculi differentialis," a document Leibniz prepared in 1714 to recount the steps in his development of the calculus, in answer to accusations that he had plagiarized Newton. Helpfully, the texts are heavily annotated by the translator.

Meli, Domenico Bertoloni. *Equivalence and Priority: Newton versus Leibniz. Including Leibniz's Unpublished Manuscripts on the Principia.* Oxford: Clarendon, 1993.

Focuses on the development of Leibniz's theory of planetary motion and his response to Newton's mechanics following the publication of the *Principia* in 1687. A lengthy appendix contains transcriptions of a number of previously unpublished manuscripts along with Meli's commentary, though readers should note that these pieces are presented in their original Latin with no English translation.

Zacher, Hans. *Die Hauptschriften zur Dyadik von G. W. Leibniz*. Frankfurt: Vittorio Klostermann, 1973. The best source on Leibniz's development of binary arithmetic, though not without its flaws. The analysis, spanning just over 200 pages, is more illuminating about Leibniz's efforts to promulgate the binary system and the reactions of his contemporaries than it is about explaining the origins and development of binary in Leibniz's hands. The volume is rounded out by around 150 pages of Leibniz's writings on binary, though unfortunately many of Leibniz's most important writings on the topic are not included.

Metaphysics

Wilson 1989 offers a good overview of Leibniz's metaphysical thought, and also seeks to outline the development of Leibniz's metaphysical views, though Mercer 2002 is more thorough in this regard. For Leibniz's ideas about substance, Arthur 2018, Garber 2009, and Hartz 2007 offer much valuable material; those left wanting more should turn to Jolley 2013 and Lodge and Stoneham 2015. For more specialist studies, see Bobro 2005 and Brown and Chiek 2016.

Arthur, Richard T. W. *Monads, Composition, and Force: Ariadnean Threads through Leibniz's Labyrinth.*Oxford: Oxford University Press, 2018.

A highly contextualized and richly-detailed study of Leibniz's metaphysics which argues that force is the essence of Leibnizian substance and resists the common tendency among Leibniz's modern commentators to suppose that he divided the universe into a physical realm of bodies and a metaphysical or immaterial realm of substances.

Bobro, Marc Elliott. Self and Substance in Leibniz. Dordrecht, The Netherlands: Kluwer, 2005.

An examination of Leibniz's views on personal identity. Bobro's study draws heavily on Leibniz's *New Essays on Human Understanding* (cited as Leibniz 1996 under English Translations), in which Leibniz attempts to grapple with Locke's notion of personal identity. Bobro argues that Leibniz's notion of personal identity is in fact quite different from Locke's, not least because Leibniz takes personal identity to require sameness of substance whereas Locke does not.

Brown, Gregory, and Yual Chiek, eds. *Leibniz on Compossibility and Possible Worlds*. Cham: Springer, 2016. A collection of nine essays on the problem of how to understand Leibniz's doctrine of compossibility, that is, what makes some possible things compatible with others (and so jointly realizable in the same possible world) and others not. In their introduction, the editors helpfully sketch out a variety of interpretations that have been offered over the years, several of which are developed further in the essays of the book.

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

Investigates Leibniz's doctrine of substance, focusing on the "middle period" years of the late 1670s to the mid-to-late 1690s. In this time, Garber argues, Leibniz's metaphysics were grounded in corporeal

substances rather than monads. In the final chapter, Garber claims that when Leibniz switched to a monadological metaphysics in later life, he entertained different answers to the question of how bodies are related to monads without ever settling on one.

Hartz, Glenn. Leibniz's Final System: Monads, Matter and Animals. London and New York: Routledge, 2007.

Considers whether Leibniz was an idealist (i.e., held that only minds and mind-dependent objects exist) or a realist (i.e., held that there exists something other than minds and their objects). Hartz claims that in his mature works Leibniz endorses both, but argues that when he does so he is not making truth-claims that describe the world as it is, but merely entertaining alternative theories of the world.

Jolley, Nicholas. *Causality and Mind: Essays on Early Modern Philosophy*. Oxford: Oxford University Press, 2013.

A collection of seventeen essays, six of which concern core aspects of Leibniz's metaphysics, in particular his notion of substance and his doctrine of causality. The remaining essays, on Descartes, Malebranche, Locke, Berkeley, and Hume, are worthy reads in their own right, and also provide useful context when approaching Leibniz. The six Leibniz essays were originally published between 1986 and 2009.

Lodge, Paul, and Tom Stoneham, eds. *Locke and Leibniz on Substance*. London and New York: Routledge, 2015.

A collection of essays, five of which concern various aspects of Leibniz's doctrine of substance (the other seven concern Locke's views on substance, and unfortunately none of the essays tackle Leibniz and Locke together). More advanced students of Leibniz will find some rewarding material here.

Mercer, Christia. *Leibniz's Metaphysics: Its Origins and Development*. Cambridge, UK: Cambridge University Press, 2002.

The central theses of Mercer's book are that the key elements of Leibniz's mature metaphysics were in place by the early 1670s, and that his metaphysics was shaped by his attempts to resolve knotty theological problems such as that of transubstantiation. Although some of Mercer's analysis is controversial, and some of her claims underdetermined, this is still an important work. Recommended for more advanced students.

Wilson, Catherine. *Leibniz's Metaphysics: A Historical and Comparative Study*. Princeton, NJ: Princeton University Press, 1989.

A broad survey of Leibniz's metaphysics, with a particular focus on its historical development. There are useful discussions of some of the thinkers who influenced Leibniz along the way. Wilson argues that Leibniz develops three distinct metaphysical systems, and ultimately comes to favor the one in which reality consists of monads and their harmoniously ordered perceptions.

Natural Philosophy

Leibniz made many contributions to natural philosophy, especially those areas now called physics, biology, and geology. Duchesneau 1994 offers a comprehensive account of Leibnizian physics. Leibniz 2001 collects together many of Leibniz's early writings on the continuum, though these writings often stray into other areas of his physics (and metaphysics) as well. For those who read French, Leibniz 1990 is a good source for writings on chemistry as well as areas of his physics that are often neglected. For Leibniz on biology, and indeed the importance of biology in Leibniz's philosophical thought more generally, Smith 2011 is a good place to start. Those wanting to go further should turn to Smith and Nachtomy 2011. As for geology, Leibniz's classic work of Earth history, *Protogaea*, can be found in Leibniz 2008. While most of the works on Leibniz's natural philosophy take it to be of historical interest, some make the case that parts of it are still relevant today. Thus Phemister 2016 argues that although Leibniz was not himself concerned with environmental problems, his thought nevertheless has the potential to ground an attractive ecological philosophy.

Duchesneau, François. La dynamique de Leibniz. Paris: Vrin, 1994.

A detailed study of Leibniz's dynamics. Duchesneau charts the development of Leibniz's thinking, and his points of departure from predecessors such as Hobbes and Descartes. A book for the advanced student.

Leibniz, Gottfried Wilhelm. Écrits concernant la Chimie. Suivis de la Physique Générale. Edited by Jean Peyroux. Paris: Blanchard, 1990.

A French-language anthology of Leibniz's writings on chemistry and general physics. Leibniz's interest in the discovery and use of phosphorous is apparent in many of the texts on chemistry, while the writings on general physics cover diverse topics such as magnetism, barometric measurement, and theories of motion. Unhelpfully, the book does not contain an introduction or discussion, just the texts and some notes (which do not indicate the sources used for the translations).

Leibniz, Gottfried Wilhelm. *The Labyrinth of the Continuum: Writings on the Continuum Problem, 1672–1686.* Edited by Richard T. W. Arthur. New Haven, CT: Yale University Press, 2001.

For Leibniz, the problem of the composition of the continuum was intimately connected to the issues of time, place, motion, atoms, the indivisible, and the infinite, and accordingly he treats of all these things in the writings in this volume. The centerpiece is undoubtedly "Pacidius to Philalethes," a lengthy dialogue on motion written at the end of 1676.

Leibniz, Gottfried Wilhelm. *Protogaea*. Edited by Claudine Cohen and Andre Wakefield. Chicago: University of Chicago Press, 2008.

An excellent edition of Leibniz's work of early Earth history, originally written between 1691 and 1693 but not published until the middle of the 18th century, decades after Leibniz's death. The *Protogaea* is full of

insights and observations drawn from Leibniz's time in the silver mines of the Harz Mountains (where he sought to construct water-pumps) as well as his travels around Italy. An important work of natural history.

Phemister, Pauline. Leibniz and the Environment. London: Routledge, 2016.

An intriguing book which seeks to show the relevance of Leibniz's philosophy to modern-day environmental concerns. Although these concerns were not Leibniz's, Phemister argues that certain elements of Leibniz's thinking can nevertheless be seen as constituting an attractive vision of the natural world along with a set of values to govern our relationship with it. Thus in Phemister's eyes, Leibniz developed—albeit unknowingly—an ecological philosophy.

Smith, Justin E. H. *Divine Machines: Leibniz and the Sciences of Life*. Princeton, NJ: Princeton University Press, 2011.

In this book, Smith seeks to show that Leibniz's thinking about the living world led him to eschew a mechanical view of nature in favor of an organic one. Moreover, Smith argues that Leibniz's belief in the organic structure of the world permeated into his philosophical thinking, making his very much a biological philosophy. English translations of five short texts are given in an appendix.

Smith, Justin E. H., and Ohad Nachtomy, eds. *Machines of Nature and Corporeal Substances in Leibniz*. Dordrecht, The Netherlands: Springer, 2011.

Leibniz's distinction between natural and artificial machines (or living and non-living machines) formed the heart of his natural philosophy, or at least the biological side of it. The essays in this volume explore the ramifications of this distinction, and together paint a picture of Leibniz as offering a very sophisticated science of life.

Religion

Religion loomed large in Leibniz's thinking, as the quantity of his writings on religion testify. Leibniz 2016 contains a selection of these, and is a good starting point for investigating his religious thought. For many years Leibniz was involved (albeit in an unofficial capacity) in efforts to unify the Catholic and Lutheran churches, and later with efforts to unify the Protestant confessions, and many of his writings on religion are connected with these attempts. Jordan 1927 offers a good overview of Leibniz's unification efforts, while Backus 2016 is a more in-depth study of Leibniz's handling of certain theological disputes at the center of unification discussions. Leibniz 1850 is an important text written at a time when hopes for the unification of the Catholic and Lutheran churches were high, though Adams 1994 argues that in spite of this it probably was not a contribution to unification efforts. Leibniz 2011 is an important text written in connection with attempts to unite the Protestant confessions. As for works that do not focus on church unification, Antognazza 2007 is a very detailed study of Leibniz's thoughts on the doctrines of the Trinity and the

Incarnation, while Coudert, et al. <u>1998</u> contains much material on possible non-Christian influences on Leibniz's thinking.

Adams, Robert Merrihew. "Leibniz's *Examination of the Christian Religion*." *Faith and Philosophy* 11.4 (1994): 517–546.

A study of the contents and context of Leibniz's "Examination of the Christian Religion," an English translation of which can be found in Leibniz 1850. Adams argues that the evidence suggests that the text was neither a personal statement of faith (as Leibniz claimed) nor a contribution to church unification efforts (as others have claimed), and that ultimately Leibniz's purposes in writing the text remain a mystery.

Antognazza, Maria Rosa. *Leibniz on the Trinity and Incarnation: Reason and Revelation in the Seventeenth Century.* Translated by Gerald Parks. New Haven, CT: Yale University Press, 2007.

A patient and methodical study of Leibniz's scattered remarks on the Christian mysteries of the Trinity and the Incarnation. Antognazza argues that Leibniz had a lifelong concern to defend these mysteries, and developed a distinctive strategy for doing so. She claims also that his reflections on these dogmas at times shaped his philosophy. A fascinating book that paints Leibniz as an apologist for traditional Christianity.

Backus, Irena. Leibniz: Protestant Theologian. Oxford: Oxford University Press, 2016.

Backus here examines Leibniz's thoughts on the Eucharist and predestination, two theological issues that were points of dispute between the parties of the various church unification projects with which he was involved. Despite the title of her book, Backus argues that Leibniz sought to resolve the disputes through his metaphysics. This book is rich in historical and theological context, and offers a fascinating insight into Leibniz as a religious thinker.

Coudert, Allison P., Richard H. Popkin, and Gordon M. Weiner. *Leibniz, Mysticism and Religion*. Dordrecht, The Netherlands: Springer, 1998.

An uneven collection of seven essays, several of which focus on possible occult, mystical, and Eastern influences on Leibniz's thought. In some cases the claims of influence are overplayed.

Jordan, G. J. *The Reunion of the Churches: A Study of G. W. Leibnitz and His Great Attempt.* London: Constable, 1927.

Despite its age, this remains a good source of information about Leibniz's church unification efforts and why ultimately they were unsuccessful. Considerably more space is devoted to Leibniz's attempts to unify Catholic and Lutheran than to his later endeavor to unite different strands of Protestantism. More of Leibniz's writings on these projects have been published since Jordan wrote in 1927, so his book is not a comprehensive or definitive treatment.

Leibniz, Gottfried Wilhelm. *A System of Theology*. Translated by Charles William Russell. London: Burns and Lambert, 1850.

In 1686, Leibniz composed a long treatise which has since become known as the "Examination of the Christian Religion," or sometimes "A System of Theology," though he himself left it without a title. This edition presents the text in its entirety along with a handful of cognate writings. The translation is now dated, but still readable.

Leibniz, Gottfried Wilhelm. *Dissertation on Predestination and Grace*. Edited by Michael Murray. New Haven, CT: Yale University Press, 2011.

In the early 1700s, as part of his efforts to unite the Protestant churches, Leibniz wrote a commentary on article XVII of Gilbert Burnet's *An Exposition of the Thirty Nine Articles of the Church of England* (London, 1699). Leibniz's commentary on this article—which is concerned with the issue of predestination—includes discussions of topics such as free will, divine foreknowledge, grace, and evil.

Leibniz, Gottfried Wilhelm. *Leibniz on God and Religion: A Reader*. Edited by Lloyd Strickland. London: Bloomsbury, 2016.

An anthology of writings, several of which were previously unpublished in any form. The writings range over a variety of topics, for example, natural theology and the philosophical proofs for the existence of God, the nature of faith, ethics, the Bible, miracles and mysteries, evil, the afterlife, and non-Christian religions. A good starting point for those looking to understand the place of religion in Leibniz's thought.

Theodicy

Leibniz's theodicy, and especially its (in)famous claim that ours is the best of all possible worlds, has intrigued philosophers for centuries. Those seeking to understand the depth and intricacy of Leibniz's theodicy, and hence grasp what exactly he thought made our world the best one possible, should start with Leibniz 1985 and keep Murray and Greenberg 2013 close to hand. Those who read French should also consult Rateau 2015. Leibniz's early attempts at theodicy can be found in texts contained in Leibniz 2005. Voltaire 2006 is the well-known but misdirected 18th-century satire of Leibniz's theodicy.

Jorgenson, Larry M., and Samuel Newlands, eds. *New Essays on Leibniz's Theodicy*. Oxford: Oxford University Press, 2014.

A collection of essays that illuminate various notions and doctrines found in Leibniz 1985, as well as related philosophical and theological issues, such as divine concurrence, grace, and predestination. Very useful as a companion piece to Leibniz 1985.

Leibniz, Gottfried Wilhelm. *Theodicy: Essays on the Goodness of God, the Freedom of Man and the Origin of Evil.* Edited by Austin Farrer. Chicago: Open Court, 1985.

In the *Theodicy*, Leibniz seeks to show that God's justice is not impugned by his decision to create a world containing evil, and that in spite of how things may seem, the world God has chosen is the best of all possible worlds.

Leibniz, Gottfried Wilhelm. *Confessio Philosophi: Papers concerning the Problem of Evil, 1671–1678.* Edited by Robert C. Sleigh Jr. New Haven, CT: Yale University Press, 2005.

The central text of this anthology, "The Confession of a Philosopher" (1672–1673), represents Leibniz's first sustained attempt at what he would later call a theodicy, that is, a justification of God in the face of the world's evil.

Murray, Michael, and Sean Greenberg. "Leibniz on the Problem of Evil." <u>Stanford Encyclopedia of Philosophy</u>, 2013.

A helpful article which outlines two different versions of the problem of evil that Leibniz addresses in his writings: the first considers whether the existence of evil might imply that God is not omnipotent, omniscient, or perfectly good, and the second whether God might be the cause of evil, to the detriment of his holiness. The article examines Leibniz's responses to these two problems.

Rateau, Paul. Leibniz et le meilleur des mondes possibles. Paris: Classiques Garnier, 2015.

A concerted attempt to explicate Leibniz's doctrine of the best possible world, determining exactly what Leibniz understood by it as well as its implications, both theoretical and practical. The book is unrivalled in its detailed analyses of key notions such as "possibility," "compossibility," "perfection," "harmony," and "contingency."

Voltaire. Candide, or Optimism. London: Penguin, 2006.

A famous satire of Leibniz's optimism, originally published in 1759. The story involves the eponymous hero, Candide, witnessing and experiencing a string of misfortunes, all the while being told by his mentor, Dr Pangloss, that everything has been arranged for the best. While the character of Pangloss is clearly intended to represent Leibniz, many contemporary scholars think that it is in fact a gross misrepresentation.

China

In the last half of his life, Leibniz developed an enduring interest in and fascination with China, being one of the first European thinkers to be open to an intellectual exchange between Europe and China, which he repeatedly pressed during his regular correspondence with Jesuit missionaries. Leibniz 1994 contains some of his most important essays on this matter, while Leibniz's correspondence with various Jesuit missionaries

in China is collected together in Leibniz 2006 and Leibniz 2015 features English translations of all of the letters from one of the more important of these exchanges, that with Joachim Bouvet. Perkins 2004 offers an excellent treatment of Leibniz's writings on China; those new to the topic should start with that. Li 2017 contains a number of essays on Leibniz's late (and ultimately unfinished) study of the natural theology of the Chinese. Perkins 2018 focuses on Leibniz's recognition of Chinese philosophy as philosophy, a much more enlightened and receptive position than that adopted by later thinkers such as Kant and Hegel, who claimed that philosophy had not arisen outside Europe.

Leibniz, Gottfried Wilhelm. "Leibniz-Bouvet Correspondence." Edited by Alan Berkowitz and Daniel J. Cook, 2015.

For the last twenty years of his life, Leibniz was in regular contact with Jesuits carrying out missionary work in China, the most noteworthy of whom was Joachim Bouvet. The correspondence lasted ten years, and is reproduced here in full. Several of the letters discuss Leibniz's discovery of binary arithmetic and Bouvet's belief that there was a strong correlation between binary and the 64 hexagrams of the Yijing.

Leibniz, Gottfried Wilhelm. *Writings on China*. Edited by Daniel J. Cook and Henry Rosemont Jr. Chicago: Open Court, 1994.

Contains four writings on China, composed between 1697 and 1716. The centerpiece is the lengthy but unfinished "Discourse on the Natural Theology of the Chinese," in which Leibniz argues that ancient Chinese notions of God, spirits, and the soul were consonant with those of Christianity, and that the mysterious hexagrams of the Yi-Jing were evidence that the Chinese had understood the binary system millennia before his own discovery of it.

Leibniz, Gottfried Wilhelm. *Der Briefwechsel mit den Jesuiten in China (1689 – 1714).* Edited by Rita Widmaier. Hamburg: Felix Meiner Verlag, 2006.

A magisterial collection of Leibniz's correspondence with Jesuits in China, from early approaches to Claudio Filippo Grimaldi in 1689 through letters to and from Joachim Bouvet, Jean de Fontaney, Charles Le Gobien, Antoine Verjus and others. The 70 texts are presented in their original language (French and Latin) along with German translations.

Li, Wenchao, ed. *Leibniz and the European Encounter with China: 300 Years of Discours sur la théologie naturelle des Chinois.* Stuttgart: Franz Steiner Verlag, 2017.

A collection of thirteen essays—eight in English, five in German—ostensibly on Leibniz's longest and most important work on China, "Discourse on the Natural Theology of the Chinese." Yet while some of the essays offer analysis of the text and some provide background to it, others are more concerned with sketching out the broader context of Europe's contact with and reaction to China during Leibniz's lifetime.

Perkins, Franklin. *Leibniz and China: A Commerce of Light*. Cambridge: Cambridge University Press, 2004. An illuminating study into Leibniz's deep fascination with China, set against the backdrop of the Eurocentrism common among European thinkers at the time, Leibniz included. Yet while Leibniz ultimately did not escape his own Eurocentrism, he was unusual in seeing the value of a cultural or intellectual exchange with the Chinese. Perkins shows that Leibniz's openness to China was not an accident but grounded in key features of Leibniz's philosophical thinking.

Franklin Perkins. "Leibniz on the Existence of Philosophy in China." In *China in the German Enlightenment*. Edited by Bettina Brandt and Daniel Purdy, 60-79. Toronto: University of Toronto Press, 2018. Unlike later thinkers such as Kant and Hegel, who were dismissive of China's achievements and denied that true philosophy could come from anywhere except Europe, Leibniz recognized Chinese philosophy as philosophy. In this essay, Perkins argues that Leibniz reached his position because he saw philosophy as a way of life rather than as a systematic science of concepts, à la Kant and Hegel.

Technical Projects

Leibniz is renowned more for his theoretical insights than his practical inventions, yet he did get involved with more technical projects. Most famous of these is undoubtedly the construction of a calculating machine, with Jones 2016 charting Leibniz's efforts to get the machine built and Morar 2015 arguing that Leibniz's machine was never finished and never worked. Leibniz's efforts to construct wind machines to drain silver mines, along with the reasons for the ultimate failure of the enterprise, are related in Wakefield 2010. Much less well-known is Leibniz's interest in cryptography and his plans for the construction of a cipher machine; these are treated in Rescher 2013.

Jones, Matthew. *Reckoning with Matter: Calculating Machines, Innovation, and Thinking about Thinking from Pascal to Babbage*. Chicago: University of Chicago Press, 2016.

A fascinating account of the effort to produce calculating machines. Only one of the chapters is devoted to Leibniz, but it is a detailed—and often entertaining—account of his attempts to direct and oversee the construction of a calculating machine by letter, often without providing sufficient detail for his contracted artisan to perform the task adequately. The book as a whole does a fine job of putting Leibniz's attempts in historical context.

Morar, Florin-Stefan. "Reinventing Machines: The Transmission History of the Leibniz Calculator." *British Journal for the History of Science* 48.1 (2015): 123-146.

Although Leibniz often claimed that his calculating machine was functional, Morar argues that none of the models he developed ever worked. The first half of this article details Leibniz's frustrated attempts to create a working machine, while the second half details the rediscovery of one of Leibniz's machines in 1879, the

efforts to restore it and make it functional, and the way history was subsequently rewritten to make the machine out to be far more of a breakthrough than it actually was.

Rescher, Nicholas. "Leibniz on Cryptography." In *On Leibniz*. By Nicholas Rescher, 313–351. Pittsburgh: University of Pittsburgh Press, 2013.

See also "Leibniz's Machina Deciphratoria: A Seventeenth-Century Proto-Enigma Machine" (pp. 352–368). The first of these two essays is an exhaustive look at Leibniz's interest in cryptography, with Rescher arguing that Leibniz's concern was principally theoretical (i.e., the mastering of a key area of human knowledge) rather than practical (e.g., for statecraft). Nevertheless, as the second essay shows, Leibniz devised—but appears not to have built—an extremely sophisticated cipher machine that was, on account of its proposed stepped-drum mechanism, more than two hundred years ahead of its time.

Wakefield, Andre. "Leibniz and the Wind Machines." Osiris 25.1 (2010): 171-188.

Leibniz's attempts to build wind machines to drain the Harz silver mines are often treated cursorily by his biographers, but Wakefield's paper provides more detail. In addition to outlining the technical aspects of Leibniz's machines, it reveals the political maneuvers he employed to convince successive dukes of Hanover to approve and fund his proposals. Wakefield challenges the usual narrative that Leibniz's efforts failed because seasoned mining men thwarted his plans.

Leibniz's Reception

Leibniz's most immediate influence was on the work of Christian Wolff (1679–1754), who endorsed and developed a number of Leibniz's doctrines, fashioning what was to become known as the Leibnizian-Wolffian philosophy. The fate of one of these doctrines, the pre-established harmony, is detailed in Watkins 1998. Although Leibniz's work did not inspire a system of thinking or school of thought in quite the way that Descartes's did, this does not mean that it lacked impact. Far from it, in fact. A comprehensive account of Leibniz's reception and influence has yet to be written, but Weckend and Strickland 2019 considers aspects of Leibniz's legacy across a range of disciplines, such as philosophy, science, law, and political thought, while Krömer and Chin-Drian 2012 is a good source for understanding Leibniz's reception in logic, mathematics, and some of the sciences. Wilson 1995 contains an overview of the reception of Leibniz's philosophy in the 18th century, while Wilson 2018 focuses on Leibniz's reception in the work of Kant. Caro 2020 looks at how one of Leibniz's most famous doctrines, that of optimism, fared at the hands of critics in the decades immediately following Leibniz's death.

Caro, Hernán D. *The Best of All Possible Worlds? Leibniz's Philosophical Optimism and Its Critics 1710–1755.* Leiden: Brill, 2020.

The claim that ours is the best of all possible worlds, arguably one of Leibniz's signature doctrines, was the subject of much discussion in the decades after Leibniz's death and sparked fierce debates among

supporters and critics. This book focuses on some of the doctrine's most ardent critics, offering a detailed account of the trend of counter-optimism that developed from the publication of Leibniz's *Theodicy* in 1710 to the Prussian Academy of Sciences' prize essay contest on optimism in 1755.

Krömer, Ralf, and Yannick Chin-Drian. *New Essays on Leibniz's Reception in Science and the Philosophy of Science 1800–2000.* Basel, Germany, and New York: Birkhäuser, 2012.

In spite of the title of the book, the majority of the twelve essays in this collection are concerned with Leibniz's influence on the development of logic and mathematics, or at least various aspects thereof. Several of the essays examine the reception of Leibniz among some of his most well-known commentators of the early 20th century, such as Louis Couterat, Bertrand Russell, and Ernst Cassirer.

Watkins, Eric. "From Pre-established Harmony to Physical Influx: Leibniz's Reception in Eighteenth Century Germany." *Perspectives on Science* 6.1 (1998): 136–203.

A fascinating and meticulously researched article about the reception of one of Leibniz's signature doctrines—pre-established harmony—in the decades after his death. Watkins traces the various reactions to the doctrine among German philosophers, from Wolff's tentative endorsement to Bilfinger's rather more enthusiastic support, alongside the attacks of bitter opponents such as Lange. Helpfully, Watkins teases out the numerous arguments and objections deployed by those on both sides of the debate.

Weckend, Julia and Lloyd Strickland, eds. Leibniz's Legacy and Impact. New York: Routledge, 2019.

A strong collection of 11 essays that between them explore various aspects of Leibniz's reception and impact from the 18th century to the present day. Several of the essays focus on Leibniz's influence on a particular thinker, such as Hume, Kant, or d'Alembert, while others consider Leibniz's impact on a particular discipline or area of thought, such as the law or anthropology.

Wilson, Catherine. "The Reception of Leibniz in the Eighteenth Century." In *The Cambridge Companion to Leibniz*. Edited by Nicholas Jolley, 442–474. Cambridge, UK: Cambridge University Press, 1995.

Wilson charts the efforts to publish Leibniz's work in the decades following his death, along with its subsequent reception. The focus of her narrative falls mostly on Germany, and in particular on Wolff, whose work was shaped by Leibniz's to such an extent that it became known as the Leibnizian-Wolffian philosophy. Also examines the reaction to Leibniz in Kant, Lessing, Eberhard, and Herder.

Wilson, Catherine. "Leibniz's Influence on Kant." Stanford Encyclopedia of Philosophy, 2018.

Perhaps a better title for this essay would be "Kant's rejection of Leibniz," as it details Kant's responses to a number of core Leibnizian doctrines and more often than not Kant's response is to reject them!

Nevertheless, this is a fine essay that throws light on the depth of Kant's interest in Leibniz and the various ways in which he engaged with Leibniz's thought.

Race, Racism, and Slavery

In addition to their positive contributions, many of Europe's most lauded thinkers have also played a role in developing or upholding ideas or institutions now widely seen as repugnant; for example, the modern notion of race, which made possible various forms of racism, and the institution of slavery, whether or not underpinned by racist ideology. While Leibniz has sometimes been thought to have endorsed François Bernier's division of human beings into different races based on different physical traits, Fenves 2005 and Smith 2013 claim that this is a mistake, with Leibniz dividing up the peoples of the world according to language rather than appearance. While this might seem to exempt Leibniz from any place in the history of race and racism, Harfouch 2017 argues that it doesn't, because Leibniz's approach would go on to inspire a particular brand of linguistic racism in the 19th century. On the matter of slavery, Jorati 2019 shows that it is ruled out by some of Leibniz's philosophical commitments.

Fenves, Peter. "Imagining and Inundation of Australians; or, Leibniz on the Principles of Grace and Race." In *Race and Racism in Modern Philosophy*, edited by Andrew Valls, 73-88. Ithaca: Cornell University Press, 2005.

Argues that Leibniz made no attempt to devise a theory of race and that even the term "race" makes little sense in the context of Leibniz's metaphysics, which views the created order as composed of discrete individual substances, each of which qualifies as *infima species*, or lowest species.

Harfouch, John. "Does Leibniz Have Any Place in a History of Racism?" *Philosophy Today* 61.3 (2017): 737-755.

In a robust response to both Fenves 2005 and Smith 2013, Harfouch argues that Leibniz's decision to classify the peoples of the world according to language was the prototype for an expression of racism common in the 19th century, for example in the work of Ernest Renan, who saw language as a reflection of the intellect and the features of different languages as disclosing the relative mental development of the different peoples who used them.

Jorati, Julia. "Leibniz on Slavery and the Ownership of Human Beings." *Journal of Modern Philosophy* 1.1 (2019):1-18.

A careful study of one of Leibniz's mature political writings in which he considers the moral case for chattel slavery and rejects it as contrary to the nature of things and a violation of natural rights.

Smith, Justin E. H. "'A Series of Generations': Leibniz on Race." *Annals of Science* 70.3 (2013): 319-335. Claims that Leibniz sought to classify the peoples of the world not in terms of physiology or appearance but by philology or language, with all human beings sharing in the same human essence—the defining

feature of which is identified as rationality—such that no individual or group could be less human than another.	