### CHAPTER 1

# Introduction

The Infinity of God

### BENEDIKT PAUL GÖCKE AND CHRISTIAN TAPP

In analytic philosophy of religion, the existence of God and the classical divine attributes of omniscience, omnipotence, and moral perfection have received extensive treatment over the last few decades. The infinity of God, in contrast, has received comparatively little scholarly attention. There is no single edited volume dealing exclusively with the infinity of God. To rectify, we have brought together philosophers and theologians to grapple exclusively with the infinity of God from historical and systematic points of view. Since our authors come from different philosophical and theological backgrounds, we hope to provide a fruitful stimulus to discussion of the infinity of God. In this introduction, we briefly clarify the question(s) at stake in the volume.

### THE INFINITY OF GOD?

Whoever asserts that "God is infinite" brings together two of the most complicated terms of the humanities and the natural sciences. The statement needs clarification in at least three ways.

The "God" Problem. It is not clear which concept the term "God" expresses. "God" is used in different senses in different philosophical

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and theological contexts. And so it is unclear whether these uses are intended to refer to the same being or not, or whether they refer to a single entity.<sup>3</sup> In order to understand the question of whether God is infinite we have to clarify, at least roughly, which concept of God we have in mind throughout our volume.

The "Infinity" Problem. It is not clear which concept the term "infinity" expresses. 4 In different sciences, it is deployed to articulate concepts that are not always obviously related to each other. But in mathematics the infinite is dealt with almost everywhere, such as in the conception of real numbers as infinite sets of natural numbers. In the philosophy of mathematics, there is an inquiry into the nature of transfinite sets and if there is an actually infinite set of numbers.<sup>5</sup> Answers to these questions cover positions as diverse as mathematical platonism, according to which there is an infinite realm of mind-independent mathematical entities, and intuitionism, which entails that mathematical objects are mind-dependent entities and therefore unlikely to be infinite. On the other hand, in physics and the philosophy of physics, based on the various mathematical concepts of infinity, questions concerning the infinitely large and the infinitesimally small are discussed. It is asked whether space is of infinite extension and whether there is a limit to spatial divisibility. Singularities that appear in the mathematical description of physical processes are called "infinities."

In contrast, most theologians and philosophers do not think of infinity primarily in terms of quantity but as a unique quality of the Divine or the Absolute, a quality not directly connected with number and measurement.<sup>6</sup>

The Relation Problem. There are at least three ways of understanding the statement that God is infinite. First, that God is infinite is an abbreviated way of referring to features of God, and nothing in addition to those features: we can sum up whatever is true of God by saying that God is infinite. Second, saying that God is infinite means that infinity is an independent feature of God in addition to other features He might have, that is, whatever else is true of God, that He is infinite is a further qualification of God. Third, that God is infinite means that certain features of God are themselves infinite: there is at least one divine attribute that is itself infinite.

Since, in the first way of understanding, the statement *that God is in-finite* is just a *façon de parler* that adds no further content to the analysis

of the divine attributes, we bracket this way of speaking of the infinity of God. Two options remain: the statement that God is infinite refers to a feature additional to other attributes of God, or it entails that at least one of the divine attributes is itself infinite.

Since, in the first case the infinity of God is considered to stand on its own, but, in the second case it needs to be qualified by some divine attribute that is putatively infinite, we call the first account the categorematic approach to the infinity of God and the second the syncategorematic approach.8 Infinity is treated in a different way in each case, but the categorematic and the syncategorematic approaches are not mutually exclusive. It is not inconsistent, prima facie, to argue that the infinity of God is both an extra feature of God and a feature of at least one of His attributes.

### CONCEPTS OF GOD

Depending on one's philosophical and theological commitments, the term "God" is deployed to articulate different concepts. We would probably obtain as many concepts of God as the number of philosophers and theologians we asked. For the sake of clarity, we provisionally use "God" with a minimal determination that allows us to unify positions as diverse as classical theism, panentheism, process theology, and open theism.

To do so, we distinguish a theological from a philosophical use of the term "God." From a theological point of view, "God" denotes the deity mentioned in the holy scriptures of a particular monotheistic religion.9 Because the focus in this volume is on the Christian understanding of God, in its theological use, "God" refers to the deity mentioned in the Bible. Even though throughout the books of the Bible the concept of God is subject to development and thus to change, we assume theologians agree that there is a minimal set of necessary features any concept of God based on the Bible must entail to be adequate. Such a minimal theological consensus at least includes that God is the loving creator of all that is, and He wants us to be saved. 10

What philosophers of religion primarily have in mind when they deploy the term "God" is neither scripture nor revelation, but either the ultimate source of everything or the ultimate goal of everything.

Although these philosophers often criticize theological concepts of God for inconsistency, they are mainly interested in the question whether any theological concept of God corresponds to a philosophical concept of the ultimate source or goal that is based not on revelation and faith, but on reason alone. They ask: Can reason confirm that the theological concept of God is an adequate concept of the ultimate source or goal of everything?

Based on a combination of the theological and the philosophical uses of "God," we suggest the following minimal account of "God":

God (def.): deity that has the essential features of the God of the Bible and is the ultimate source and goal of existence, insofar as such a source or goal is available to purely philosophical argument.

Based on this understanding, whether God is infinite turns out to be the following question:

Q1: Is the deity mentioned in the Bible, specified by the minimal theological consensus, and rationally accessed as the ultimate source or goal of everything, *infinite*, and, if so, *in what sense*?

### THE CATEGOREMATIC APPROACH TO THE INFINITY OF GOD

We will briefly analyze categorematic notions of infinity here before we turn to syncategorematic notions of infinity in the next section.

The problem with the categorematic understanding of infinity is that even when intended to express an independent and additional quality, "infinite" is used in ways that express mutually exclusive concepts. Historically and systematically, popular interpretations of infinity used to refer to a genuine property of an entity that include the notions of to be boundless, to be unlimited, and to lack finitude. 11

We can exclude boundlessness and unlimitedness because the predicates "being without bound" and "being without limit" need to be qualified by stating the respect in which something is without bound or limit. For instance, something can be "without spatial limit" or "without temporal bound." However, since the intelligibility of spatial and temporal infinity depends on a possible measure by spatial or temporal units, spatial and temporal infinity belong to the class of syncategorematic notions of infinity and do not specify anything categorematic. This leaves us with the negation of finitude as a possible criterion of categorematic infinity.

Infinity as the denial of finitude can either be understood in a negative or in a positive way. In Plato's thought, paradigmatically representing the mind of classical Greece, infinity as the denial of finitude is expressed by apeiron, "absolute formlessness" and "absolute ontological underdetermination." Being finite consists in possessing a certain form of ontological determination. Since anything that lacks form eo ipso is inaccessible to the mind and is of the lowest ontological status, being infinite for Plato is a very bad thing indeed—whatever is infinite is without form and therefore lacks intelligibility.<sup>12</sup>

Gregory of Nyssa as influenced by Neoplatonism saw things in a different light. Paradigmatically representing early Christian orthodoxy, he thought of infinity as expressing total superabundance and the fullness of being.<sup>13</sup> Since in our volume here God is understood philosophically as the ultimate source or goal of everything, we can exclude the Platonic interpretation of categorematic infinity and adopt that of Gregory of Nyssa. On the categorematic concept of infinity, whether God is infinite therefore turns out to be expressed in the following question:

Q2: Does the deity mentioned in the Bible, specified by the minimal theological consensus, and rationally accessed as the ultimate source or goal of everything, possess total superabundance and the fullness of being?

# SYNCATEGOREMATIC APPROACHES TO THE INFINITY OF GOD

On the syncategorematic approach, the infinity of God is not a quality in addition to other divine attributes but consists in the infinity of at least one divine attribute. The difficulty here is that there is more than one way of understanding the syncategorematic infinity of a divine attribute. There are two relevant directions we can take. First, "syncategorematic

infinity" can be used to refer to a quantity. Second, it can be used to express the mode of givenness of a particular attribute.

The first way of understanding syncategorematic infinity is, again, open to two interpretations, depending on the concept of quantity we have in mind. "Quantity" can refer to an extension or to an intension, that is, to the size of the class of objects having the respective property or to the degree to which an object has that property.<sup>14</sup> (This is the sense of "intension" that the Scholastics had in mind when they considered the intensio of a property. It is not to be confused with the Fregean concept of intension, which is the sense a certain predicate expresses.)

If we understand quantity as extensional quantity, then we obtain a notion of quantitative infinity on which the extension of a property is putatively infinite. Since an infinite extension can either be understood to be an infinite continuum or to be an infinite extension of discrete units, there are two further ways of spelling out quantitative extensional infinity: (1) that a property F is infinite according to its extensional quantity means either that there are infinitely many Fs (an infinite multitude) or that there is an infinite continuum of F (an infinite magnitude). <sup>15</sup> For example, one might take divine omniscience to entail infinite knowledge, in the sense that God knows infinitely many true propositions. Or, (2) one might take divine omnipotence to entail infinite power, in the sense that what God can do has no limits in space or time.

If we understand quantity not in an extensional way but according to its intensio, then we obtain a different notion of syncategorematic quantitative infinity. Whereas the extensional account is concerned with infinitely many Fs or infinitely much of F, this account of syncategorematic infinity is concerned with the degree to which a property is realized in an object. The classical example is "infinite whiteness" (if there were such), which, in the extensional sense, means infinitely many white things, or an infinitely extended white surface, and, in the intensional sense, means unlimited or infinite degree of whiteness (the brightness or, in terms of physics, the capacity to reflect all colors of the visible spectrum). "Mary is infinitely wise" cannot mean that Mary's wisdom extends to infinitely many or infinitely large entities, but means that the degree of her wisdom is unlimited. Some philosophers take omnipotence to entail infinite power in the sense of God's power not being limited to any degree.

Finally, we can understand syncategorematic infinity as referring to the mode of givenness of a certain property. What does it mean to say that the mode of givenness of a property is infinite? Could the mode of givenness of some property F be infinite? This is the most puzzling of the notions discussed in this introduction, but there are some uses in which it seems clearly to make sense. For instance, some philosophers take God's omnipresence to presuppose presence in a mode quite different from the presence of physical objects in space, which can be said to be present at a place by being contained by it. "Presence" applies to God—if it does at all—in a sense that requires dropping the element of limitation by containment.

Since to exemplify a property F in an infinite mode means to possess this property irrespective of any limitations of the exemplifying entity (as in the case of presence), the infinity of the mode of givenness of a property F, exemplified by an entity, is the archetype of what it means to possess F tout court. Any other mode of givenness of this property is consequently a restriction of the archetype in question.

It follows that we obtain different questions concerning the syncategorematic infinity of the divine attributes depending on which interpretation of syncategorematic infinity we have in mind.

The question of whether God is infinite, according to the extensional quantitative approach that refers to discrete units (multitude), is this:

Q3: Does the deity mentioned in the Bible, specified by the minimal theological consensus, and rationally accessed as the ultimate source or goal of everything, exemplify a property the extension of which consists of infinitely many discrete units?

According to the extensional quantitative approach that deploys a continuous notion of extensional quantitative infinity, the question is as follows:

Q4: Does the deity mentioned in the Bible, specified by the minimal theological consensus, and rationally accessed as the ultimate source or goal of everything, exemplify a property the extension of which is an infinite continuum?

According to the intensional quantitative approach, the question of whether God is infinite can be stated as follows:

Q5: Does the deity mentioned in the Bible, specified by the minimal theological consensus, and rationally accessed as the ultimate source or goal of everything, exemplify a property to an infinite degree?

Finally, if we do not have quantitative infinity in mind but instead the *mode of givenness* of a particular divine attribute, the question is this:

Q6: Does the deity mentioned in the Bible, specified by the minimal theological consensus, and rationally accessed as the ultimate source or goal of everything, exemplify a property such that the mode of givenness of this property is infinite or archetypical?

# THE INFINITY OF GOD FROM A HISTORICAL AND SYSTEMATIC POINT OF VIEW

All of the chapters in this volume implicitly or explicitly grapple with the elaborated questions concerning the infinity of God. We proceed in two parts. The studies of the first part mainly deal with historical appreciations of the concept of infinity and the various assessments of its capacity to function as a categorematic or syncategorematic attribute of God.

The first part, titled "Historical Approaches to the Infinity of God," is opened by Franz Krainer in chapter 2, "The Concept of the Infinity of God in Ancient Greek Thought." Krainer provides a brief analysis of the variety of concepts of qualitative and quantitative infinity found in ancient Greek thought reaching from Plato to Gregory of Nyssa. Although in this period the term "infinity" often has more than one meaning, sometimes even within the work of a single philosopher, Krainer argues that at least two contrary conceptions of God's infinity can be identified: infinity as expressing divine indeterminacy or perfection. On both these accounts, however, there is a subtle agreement that God's qualitative infinity is strongly related to God's incomprehensibility. Therefore, according to Krainer, the concept of an infinite God in ancient Greek thought naturally led to the development and support of negative theology in which it is disputable whether the infinity of God allows us to formulate any intelligible statement about God at all.

In chapter 3, "Infinity in Augustine's Theology," Adam Drozdek provides an analysis of Augustine's stance on the infinity of God. Although Augustine at first thought about God as an infinite corporeal being, he later became convinced that God had to be understood in an incorporeal manner. Drozdek argues that although in this respect Augustine struggled with both the problems concerning quantitative notions of infinity related to infinite space and time and the possibility of infinite divine knowledge—for which every infinite quantity, according to Augustine, is finite and thus comprehensible—he never explicitly developed an account of divine infinity as such. Instead, Augustine stressed that God's essence lies in his immutability and eternity, both of which indicate that God is beyond infinity and finitude.

William Carroll's chapter 4, "Aquinas on Creation and the Analogy of Infinity," argues that for Thomas Aquinas there is a close connection between the concept of creation and the concept of the infinity of God—whereas creatures are identified as creatures by the reception of being, and thus are always in certain respects finite, unreceived being is the hallmark of God the Creator. To show that for Thomas unreceived being is absolutely infinite and fully determined, Carroll analyses what Thomas says about divine infinity in *Scriptum super IV libros Sententia-rum*, *Summa contra Gentiles*, and *Summa theologiae*, all of which deal with the concept of God as subsistent being. Carroll concludes that for Thomas divine infinity is a natural consequence of his concept of creation and can be known, at least in an analogical way, by reason alone.

In her "Spinoza and Leibniz on the Absolute and Its Infinity: A Case Study," Christina Schneider in chapter 5 analyzes the entailments of different concepts of infinity for the concept of the Absolute and its relation to the world. To do so, she compares Spinoza's and Leibniz's conceptions of the infinity of God. Based on the assumption that divine infinity, formally, is used to express a divine perfection, Schneider distinguishes between two concepts of divine infinity as a perfection: on the first meaning, divine infinity is understood to exclude negation, whereas on the second meaning divine infinity refers to the highest degree of an attribute, as found, for instance, in God's omniscience and omnipotence. Spinoza, according to Schneider, operates with the first concept of divine

infinity, Leibniz with the second. Once this is clarified, she spells out some problems for Leibniz's attempts to avoid Spinozism: to escape Spinozism, Leibniz both conceived God to be completely independent of His creatures and introduced the concept of monads. However, since monads are not intellectually accessible by God, Schneider identifies a crucial problem: either the concept of God's omniscience has to be modified to include a kind of Spinozistic omnisubjectivity or God cannot be omniscient—the latter of which is not consistent with Leibniz's concept of divine infinity.

Ruben Schneider in chapter 6, "Kant and the Infinity of Reason," deals with Kant's account of the existence and essence of God understood as the infinite being that is the ground of the world order. In contrast to traditional interpretations in which Kant rejects every attempt to construe a metaphysical theory of God, Schneider argues in a first step that Kant firmly presupposed the existence of God, but he argued against philosophical attempts to grasp divine attributes as they are in themselves. In a second step, Schneider investigates Kant's concept of infinite divine reason and spells out some possible consequences of Kantian philosophy. It seems that Kant's philosophy is at least open to a panentheistic interpretation, according to which the difference between God and the created world is within God and the finite mind of creatures is participating in the absolute spirit of God.

In chapter 7, "Infinity and Spirit: How Hegel Integrates Science and Religion, and Nature and the Supernatural," Robert M. Wallace shows how Hegel employs his conception of infinity in order to try to integrate science and religion and also both the natural and the supernatural realm of being. He first argues that Hegel's concept of true infinity should be understood as "the finite's own going beyond its finitude." He then spells out how based on this notion of the ascent of finitude, science, religion, ethics, art, and philosophy can all be understood as metaphysically necessary aspects of a single self-determining reality that is properly referred to as the divine being. Everything that constitutes this ultimate reality is part of an ascent above its initial opinions and appetites and frees the individual of determination by things that are not itself. Thus it enables a true self-determination of reality.

Christian Tapp in "Bolzano's Concept of Divine Infinity," chapter 8, argues that infinity is central to each of the three areas in which Bolzano

had expertise: mathematics, philosophy, and theology. He concentrates on Bolzano's analysis of the infinity of God and shows that on Bolzano's view the concept of quantitative infinity is best understood as follows. A series is quantitatively infinite if and only if it has no last term and every finite series can be mapped one-to-one onto a part of it. According to Tapp, on Bolzano's view this concept of quantitative infinity is more basic than all other concepts of infinity. Therefore, even qualitative concepts of the infinity of God have to be related in one way or the other to the elaborated quantitative concept of infinity. Tapp ends by identifying further tasks that must be dealt with to fully specify an adequate conception of divine infinity.

In chapter 9, "Cantor and the Infinity of God," Bruce A. Hedman elaborates on Cantor's different concepts of infinity and briefly summarizes his theories of ordinal numbers, cardinal numbers, and his theory of sets and transfinite numbers that revolutionized mathematics. Furthermore, he shows that it was of the utmost importance to Cantor that his stance on the various concepts of infinity was in accordance with Christian faith: Cantor distinguished his concept of the transfinite firmly from the absolute infinity of God and was relieved that a leading papal theologian confirmed that his theory did not contradict faith. On Cantor's theory, according to Hedman, God is the absolutely infinite that is both the ontological ground of the transfinitum and its repository. Precisely because of this, however, it is mathematically indeterminable in itself.

The second part of the volume, titled "Systematic Approaches to the Infinity of God," has a systematic focus and provides different accounts of divine infinity, both in terms of quantity and quality. The first studies of the second part deal with the infinity of divine attributes, such as omnipotence, omniscience, everlastingness, and perfect benevolence, whereas the second group of studies deal with the infinity of God as such, divine simplicity, the Holy Trinity, and, finally, the use of infinity in current scientific theories.

In chapter 10, "God Almighty: Divine Power and Authority in the Biblical and Patristic Periods," Bernhard Lang first examines how the Israelites describe God's exercise of power, and second how Israel's God came to be called "almighty." Almightiness, according to Lang, in the biblical context is to be understood as having infinite power and could be defined as the unrestricted faculty to do anything that one wants to do.

There was no distinct concept of divine almightiness in the earlier biblical texts, but the notion of God changes in the late biblical period, which, according to Lang, is clearly shown in the Apocalypse of John: almightiness ever since has been perceived to be the essential attribute of God that encompasses all other attributes.

Whereas Lang concentrates on the historical development of the doctrine of divine almightiness in the Bible, the next two chapters spell out the biblical notion of almightiness in philosophical terms. First, in chapter 11, "God's Omnipotence," Richard Swinburne develops a definition of omnipotence in terms of God's ability to bring about events. After a careful analysis of simultaneous and backward causation, both of which Swinburne rejects, he argues for the adequacy of the following definition of omnipotence: S is omnipotent during some period of time if and only if S knows all metaphysically necessary propositions and all metaphysically contingent true propositions about every event at any time earlier than the beginning of his action and all propositions that those propositions entail; he is not moved by any nonrational influences, and is able to cause by an act beginning at any instant t and ending at any instant  $t_2$ , both during that period, any metaphysically contingent event M beginning at any instant  $t_1$  later than t and ending at  $t_2$ , which does not require him to be influenced by nonrational influences in order to do that act. Based on this definition, Swinburne ends by arguing that apart from divine aseity and everlastingness, each other divine attribute is entailed by this concept of omnipotence.

In contrast to Swinburne's analysis of omnipotence, Kenneth L. Pearce in chapter 12, "Infinite Power and Finite Powers," provides an analysis of divine omnipotence in terms of infinite power. In a first step, he argues that being infinitely powerful means possessing power over the truth of a proposition tout court; it does not mean to possess an infinity of particular powers. In a second step, he shows that being absolutely powerful to perform an action A means to have perfect efficacy and to have perfect freedom with respect to A. According to Pearce, then, omnipotence is a relatively simple concept, whereas the concept of finite powers is the complicated one: it can only be established by adding a series of limitations to God's infinite power. It seems, therefore, that for Pearce, finite powers of creatures are participations in and restrictions of the infinite power of God.

In chapter 13, "Infinite God, Open Future," William Hasker turns away from the explicit analysis of omnipotence and concentrates on the analysis of God's relation to time. In the first part of his study, Hasker provides a systematic overview of some of the concepts of infinity that were deployed by Plato, Aristotle, Scotus, and Hegel. Hasker, though, is especially critical of Hegel's conception of the true infinite and argues that it looks defective. In his second part, he turns to the analysis of divine infinity as it is operative in the paradigm of open theism.

According to Hasker, the main concern of open theism is to maintain a robust realism concerning the character and activities of God as described in the Bible, where the most significant feature of open theism is God's dynamic omniscience summed up both by the assumption that God exists in time and by the supposition that God's knowledge changes as time develops into an open future. Hasker analyzes different concepts of the infinity of God's dynamic omniscience and argues that on each of them God turns out to be the infinite and everlasting creator of a universe with an open future.

In contrast to Hasker's analysis of God's infinity as suggesting a temporal existence of God, Paul Helm's chapter 14, "Infinity and God's Atemporality," deals with God's infinity understood in a classical way as entailing that for God to have immediate access to all places and all times of his creation, He has to be eternal, that is, atemporal. Helm defends this view against recent objections by analyzing divine infinity in terms of God's atemporality. There are two main strategies of argumentation for Helm. First, the infinity of God entails that God does not exist in time, nor is He subject to time, as his creatures are. Second, Helm argues that existing outside of time entails that there are things that God cannot do that his creatures can do. However, although it is often argued that this conclusion leads to a contradiction in the concept of God, Helm argues that these consequences do not constitute an objection to the infinity of God properly understood in terms of divine atemporality.

In chapter 15, "Infinite Goodness," Brian Leftow deals with another of the classical divine attributes: God's benevolence understood as infinite goodness. In the first part of his study, Leftow summarizes Aquinas's understanding of infinity, and based on this he defends the claim that God can have virtues. Leftow argues that even if one denies God's having emotions, which Leftow does not, one can think of God as virtuous. Once this is done, Leftow provides a definition of the perfect degree of a virtue and defines perfect benevolence in such a way that it is not contradicted by the intelligibility of a surpassable record of benevolent acts. His notion of perfect benevolence thus is defined qualitatively, not quantitatively. Finally, Leftow argues that in the case of God and His benevolence, even if He necessarily does something good, the necessity arises entirely out of his own internal states rather than being imposed from without, which means that we can still be grateful to God.

Leaving the analysis of particular divine attributes behind, Ken Perszyk in chapter 16, "Divine Infinity and Personhood," deals with the question whether it is possible at all that God is both an infinite entity and a person. To answer this question, he first analyzes different concepts of infinity and divine infinity before, in a second step, he turns to the analysis of the concept of personhood. Once he has clarified in what sense God could be said to be a person, Perszyk argues that there are several reasons that an infinite God cannot be a person. He concludes that being a person cannot literally apply to God if God is literally infinite.

In chapter 17, "Divine Infinity and the Trinity," Thomas Schärtl is concerned with the concept of the Holy Trinity and the difficulties of accounting for it in terms of divine infinity. He first discusses Gregory of Nyssa's reflections on infinity before he turns to Nicolaus Cusanus's theory of divine infinity. Schärtl then discusses divine simplicity and its relation to infinity: to derive simplicity from infinity, he argues, two tools are needed. The first tool is the concept of coextensionality: two properties are identical if and only if whatever fulfills the one concept in a possible world also fulfills the other in that possible world. For instance, the doctrine of coextensionality entails that the extension of "infinite goodness" is necessarily identical to the extension of "infinite wisdom," and vice versa. The second tool is paradigmatic predication. Paradigmatic subjects of predication instantiate the property they express but they do not have them in the usual sense of having a property. Based on these two tools, Schärtl first concludes that the divine attributes are paradigmatic subjects of predication and that God is the ultimate and most eminently paradigmatic subject of predication. Second, he argues that his concept of infinity safeguards divine simplicity and divine uniqueness.

In chapter 18, "(A)symmetries between God and World: Process Philosophy, Postmodern Theology, and the Two Families of Infinity Argument," Philip Clayton analyses six symmetries in the relation between God and the world suggested by Whitehead and how they have been dealt with in different postmodern theological traditions. According to Clayton, postmodern theologians share Whitehead's emphasis on the symmetry between God and world and the corresponding metaphysics of immanence, even though they rarely formulate their view in these terms. He argues that contrary to Whitehead's assertion, however, there are several asymmetries in the God—world relationship that in Western discourse have been spelled out by deploying two concepts of infinity: infinity as unlimited perfection that concentrates on infinite perfection, and infinity as absolute or perfect infinity. Keeping these differences in mind, Clayton argues that divine infinity offers a surprisingly effective bridge between classical metaphysics and the focus of contemporary thinkers on the Unnamable and Unspeakable.

In chapter 19, "The Quantitative and the Qualitative Infinity of God," Benedikt Paul Göcke analyses quantitative and qualitative notions of infinity. In a first step, he argues that quantitative and quasi-quantitative approaches to divine infinity are not sufficient to formulate a precise thesis of God's infinity. In a second step, he establishes a positive qualitative concept of divine infinity in which God exemplifies, in the unity of his being, contradictory properties. He shows that if one assumes that there is a single ultimate source of everything, one can draw the conclusion that there is a single qualitatively positive infinite entity, which, in contrast to finite entities, is not subject to the law of noncontradiction but instead is subject to paraconsistent logic. Based on this, Göcke argues that in the Christian theological tradition, the single ultimate source of everything is God and that as a positive infinite entity God is both distinguishable from the realm of finitude that is subject to the law of noncontradiction and at the same time the more indistinct insofar as He is distinct.

### NOTES

1. The reason might be twofold. On the one hand, from a theological point of view, the Bible itself has very little to say about the infinity of God: the Bible speaks of the omnipresence and of the powerfulness of God, of his immense knowledge, but not of his substantial infinity. The infinity of God therefore might have

been considered to be of less interest than other, prima facie, more positive features of the divine being, such as omniscience or omnipotence. But because of the implicit quantifier "everything," even these terms are open to an interpretation in terms of infinity. On the other hand, from a philosophical point of view, the concepts of infinity and divine infinity are quite unclear in themselves, and substantial reflection is needed on these concepts and their different interpretations throughout the disciplines. Since our interest is not in the research history concerning the infinity of God, but rather in the infinity of God itself, we leave it open what might have been the reasons that the infinity of God was treated very little in the past few decades.

- 2. Michael Heller and W. Hugh Woodin (2011) edited a collection of studies on the concept of the infinite in which, for the most part, mathematicians, physicists, and philosophers deal with problems surrounding the notion of the infinite in relation to abstract entities, space, time, numbers, and aesthetics. Graham Oppy (2006) intends to clarify the notion of the infinite in order to prepare the ground for an analysis of cosmological arguments for the existence of God. However, the question of what it means to say that *God is infinite*, and *whether God is infinite or finite*, is barely addressed in these volumes. In Heller and Woodin's collection, there are only four chapters dealing straightforwardly with the infinity of God, whereas in Oppy's book the infinity of God itself is not dealt with.
- 3. Cf. Göcke 2013 for a clarification of the different contexts of use of the term "God" in philosophy and theology. Cf. Göcke 2012 for an analysis of the use of "God" in classical theism and panentheism.
- 4. As David Hilbert (1967) famously put it: "The infinite has always stirred the emotions of mankind more deeply than any other question; the infinite has stimulated and fertilized reason as few other ideas have; but also the infinite, more than any other notion, is in need of clarification" (371).
- 5. Cf. Oppy 2006 (7–19) for a brief overview of questions surrounding the notion of the infinite. Cf. also Tapp 2011b.
- 6. As Bombieri (2011) says: "What is infinity? Is it the inaccessible, the uncountable, the unmeasureable? Or should we consider infinity as the ultimate, complete, perfect entity?" (55).
- 7. Is the following a fourth option? *That God is infinite* means that we cannot understand what it is that God is. It seems not. Whoever asserts that the statement *that God is infinite* expresses the proposition that we cannot understand what it is that God is needs an account of why the infinity of God excludes our understanding of God. In order to justify this claim, though, he or she has to argue that our inability to understand God is because the infinity of God is either an extra feature or a qualifier of his features that entails our inability to understand what it is that God is. Cf. Tapp 2011b (95) for a further analysis of different interpretations of infinity, particularly for those that differentiate between a quantitative, eminent and metaphysically precategorical dimension of infinity.
  - 8. Cf. Tapp 2011b (94), Tapp 2016 (96–97), and Bocheński 1970 (179–82).

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- 9. From the point of view of religious studies, the term "god" can be used to refer to deities mentioned in many different religions that neither are monotheistic religions nor are based upon holy scriptures. However, since our focus is on monotheistic theology, we bracket this more relaxed way to use the term "god."
- 10. Since the biblical data do not entail a single unambiguous concept of the deity they deal with, much is left open with regard to the potential specification of this minimal theological consensus, which is why positions as diverse as process theology, classical theism, panentheism, and open theism are all prima facie consistent with scripture.
- 11. To these three conceptions of infinity and the following discussion, see Tapp 2015.
- 12. Cf. Hart 2011: "For Plato—and, really, for the entire classical philosophical tradition of Greece, including Stoicism—the infinite was solely a negative concept. Words like *apeiron* . . . were more or less entirely opprobrious in connotation; they were used to designate that which was 'indefinite' or 'indeterminate' and, hence, 'irrational' or 'unthinkable.' The infinite is that which lacks form, that which reflects no eidon and receives the impress of no morphe. As such, it is pure deficiency. Hence, Plato would never have called the Good beyond being 'infinite'" (258).
- 13. Cf. Hart 2011: "What Gregory understands 'infinity' to mean when predicated of God is very much (at least on the fact of it) what Plotinus understood it to mean in regard to the One: incomprehensibility, absolute power, simplicity, eternity. God is uncircumscribable . . . elusive of every finite concept or act, boundless, arriving at no terminus. . . . God is without opposition, as he is beyond nonbeing or negation, transcendent of all composition or antinomy; it is in this sense of utter fullness, principally, that God is called simple" (267).
  - 14. Cf. Tapp 2016 (96-97).
- 15. In general, magnitudes are taken to be continuous, such as, for example, a 1-cm line, whereas multitudes are discrete, such as, for example, 25 points. This is *not* to say, however, that an infinitely large continuous object like a line extending infinitely through a Euclidean space cannot also be conceived of as an infinite sets of points.

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# THE INFINITY of GOD

NEW PERSPECTIVES IN THEOLOGY
AND PHILOSOPHY

EDITED BY

BENEDIKT PAUL GÖCKE AND CHRISTIAN TAPP THE INFINITY OF GOD

# The Infinity of God

New Perspectives in Theology and Philosophy

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# BENEDIKT PAUL GÖCKE

and

CHRISTIAN TAPP

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