

Three Views on  
Creation, Causality,  
and *Abstracta*

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*Introduction to the Conversation*

In the spring of 2015, three philosophers of religion gathered on the campus of Southern Evangelical Seminary just outside Charlotte, North Carolina, to discuss their differing views on the relationship between God and abstract objects. After the long evening of robust exchange, the three scholars, William Lane Craig, Peter van Inwagen, and J. Thomas Bridges, each had an opportunity to update their original papers and write responses to the other two. It was a fascinating discussion, and we thought you'd like to "listen in" through the pages of *Philosophia Christi*. Sometimes formal, sometimes less so, you will sense the character of the original open discussion in the papers that we present here.

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*Did God Create Shapes?*

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I am going to discuss abstract objects. In particular, I am going to discuss *shapes*. I choose shapes because, if for no other reason, they are rarely mentioned in ontological debates and people may therefore have fewer preconceptions about shapes than they have about, say, attributes or numbers or propositions. I will use phrases like “the ball” and “the cube” and so on to name shapes. I do not mean to suggest by this choice and this terminology that shapes constitute a *sui generis* ontological category. It may be, for example, that the shape I call “the cube” is nothing other than the property of being cubical. And, moreover, if phrases like “the ball” and “the cube” sound in any way suspicious to you, feel free to replace them with phrases like “the shape a thing has if and only if it’s spherical” or “the shape a thing has in virtue of being cubical.”

I will first defend the thesis that there are, or at any rate could be, shapes nothing has. Consider the five Platonic solids—regular convex polyhedra (convex polyhedra all of whose faces are of the same size and shape and all of whose edges are of the same length). Among them is the cube, a regular convex polyhedron with six faces, each of them a square. A less familiar Platonic solid is the icosahedron, a regular convex polyhedron which has twenty faces, each an equilateral triangle. That there are exactly five Platonic solids was proved by Euclid if by no earlier mathematician. It is not easy to make an icosahedral artifact, and there was obviously a time when none had yet been made. For all I know, none had been made when Euclid published his *Elements*. Let’s suppose so. (It happens that there *are* naturally occurring icosahedral objects—certain viruses, for example—but none that an ancient Greek could have known of.)

Let’s suppose that we’re in Alexandria in 270 BC and we hear a critic say to Euclid, “Euclid, you’re wrong. You say that there are five Platonic solids, among them the icosahedron. But nothing is icosahedral, and the icosahedron is a shape, and it’s absurd to suppose that there’s a shape and that

ABSTRACT: I defend the thesis that at least some abstract objects are uncreated. I choose to discuss a rather neglected category of abstract object, *shapes*. I choose to discuss shapes because I think the members of my audience may have fewer metaphysical preconceptions about shapes than about, e.g., numbers or propositions or attributes.

there's nothing *of* that shape—a shape that nothing *has*. Therefore, there are at most *four* Platonic solids.”

Let's suppose we agree with the Critic that there can't be a shape that nothing has. Nevertheless, we know that there is no mistake in Euclid's proof, and we must therefore believe that there is *some* proposition that is consistent with there being nothing icosahedral *and* can be said to be what he proved. Well, we might insist that since there are no shapes that nothing has, and Euclid's conclusion is true, there must be icosahedral objects somewhere. We might contend, that is, that Euclid's theorem is an *a priori* proof of the existence of physical things of a certain shape. But I really don't think that the following is a very persuasive argument: “Since Euclid's conclusion is true and there can't be shapes that nothing has, there must be icosahedral objects somewhere—perhaps they're too small to see or they're very far away. Or maybe they exist as undetached parts of various things, in the way that the Cnidian Aphrodite already existed as a part of a block of marble before Praxiteles chipped away the rest of the block.”

Might someone say then say that, although there are no *actual* icosahedral things there are nevertheless plenty of icosahedral things, namely, *possible* icosahedral things (that is *merely possible* icosahedral things), icosahedral things that, although they don't *actually* exist, would have existed if history had taken a slightly different course? But to say that *there are* possible icosahedral things is to say that possible icosahedral things *exist*. And to say that possible icosahedral things exist is to say that there exist icosahedral things that might have existed but in fact don't exist. And that implies that things that don't exist do exist—an obvious contradiction.

Well, how about this, then? “We *can* use the idea of the merely possible to reconcile the validity of Euclid's proof with our conviction that there are no shapes that nothing has—even if we can't do it in the way set out in the previous suggestion. We can state Euclid's conclusion as follows. Begin by defining the predicate ‘is Platonic,’ a predicate that applies to tangible physical objects. I won't give the definition, but here are some examples to give you a general idea of what the predicate means. Cubical blocks of stone are Platonic, and so are ordinary dice. If some great craftsman were to make an icosahedral object, that artifact would be Platonic. Having this predicate of physical things at our disposal, we may state Euclid's conclusion as follows:

It is *possible* for there to be five distinct physical objects each of which is Platonic and each of which is shaped differently from each of the others; it is *not* possible for there to be *six* distinct physical objects each of which is Platonic and each of which is shaped differently from each of the others.

Now this is a very powerful suggestion. In *some* sense this statement seems to say everything about the world that the statement “There are exactly five Platonic solids” says—and it does not assert the existence of *anything*

(and thus does not assert the existence of a shape that nothing has). What this fact illustrates is that it is sometimes possible to translate a statement that implies, or at least appears to imply, the existence of abstract objects into a statement that seems to say everything those who do not believe in the existence of abstract objects think is “right” about the original statement and which does not even *seem* to imply the existence of abstract objects. Or let us call the philosophical thesis that there are no abstract objects nominalism. We can then say that sometimes it is possible to replace a nominalistically unacceptable statement with a nominalistically acceptable paraphrase of that statement.

A powerful suggestion, yes, but not ultimately a workable one. Here's the reason why: While Euclid's theorem about the Platonic solids can—I concede—be given a nominalistically acceptable paraphrase, not every step in his *proof* of it can. (I can't go into this within the scope of the talk.) And no one knows of any other proof of his conclusion every step of which can be given a nominalistically acceptable paraphrase. Now cases like this have led some philosophers to adopt a position called *mathematical fictionalism*,<sup>1</sup> a position that would imply that although there are *intermediate steps* in Euclid's proof that are false statements—those that imply the existence of abstract things like shapes—we should nevertheless regard it as really being a *proof*. We should treat those intermediate steps as involving a kind of useful fiction—useful for drawing true conclusions from true premises but requiring the employment of some of the members of a certain stock of statements that are literally false to reach those true conclusions. In my opinion, mathematical fictionalism is a nonstarter.<sup>2</sup>

All right. You can't go through and accept each step of Euclid's *proof* of the theorem “There are exactly five Platonic solids” without asserting the existence of shapes (or something very much like them, things that a nominalist is not going to like any better than shapes—“possible” shapes, shape properties, descriptions of possible shapes, *ways* of constructing a description of a shape from more basic elements . . .). Finally, if there are shapes at all, there is such a shape as the icosahedron. And that shape is a shape that (as far as we can tell back here in 270 BC) nothing has.

Okay, enough of the pretense that we are back in 270 BC. Let's return to the present. Today we can't argue that there is a shape nothing has because nothing is icosahedral owing to the inconvenient fact that today we know that it's false that nothing is icosahedral. But if there are shapes at all, there must be shapes nothing has. If I have a lump of clay in my hand, there exist

1. See, e.g., Mark Balaguer, “Fictionalism in the Philosophy of Mathematics,” in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, <http://plato.stanford.edu/archives/sum2015/entries/fictionalism-mathematics/>.

2. See my essay “Fictional Nominalism and Applied Mathematics,” *The Monist* 97 (2014): 479–502.

vastly many shapes I *might* work it into with my fingers and almost all of them are shapes that nothing will ever have.

What I have said implies that a shape can exist if nothing has it. But there is more: a shape not only *can* exist if nothing has it, it *must* exist if nothing has it. Every shape must exist whether anything has it or not, for every shape is *necessarily* existent. Suppose, for example, that someone suggests that the shape “the cube” might not have existed. If that’s right, there’s a possible world in which there’s no such shape as the cube. I don’t mean a world in which there’s nothing *of* that shape—that is, a world in which there are no cubes. Of *course* it’s possible for there to be no cubes. I mean a world in which there’s no such shape for a thing to have. In such a world the existence of cubes wouldn’t even be a possibility. In such a world an artisan couldn’t say, “I’ve thought of a very elegant shape. It’s the shape a thing would have if it were a regular convex polyhedron with six faces, all of them squares. I’ll make something of that shape next week.” For in that world, by definition, there’s nothing for the phrase “the shape a thing would have if it were a regular convex polyhedron with six faces, all of them squares” to refer to—a phrase that, if it refers to anything, refers to the shape more succinctly referred to as “the cube.” In a world in which the shape “the cube” did not exist, this actual state of affairs in which we find ourselves would not even exist as a *possibility*—for, in this actual state of affairs, there are cubes. And the proposition “It is possible for there to be cubes” can’t be true unless “the cube” is a possible shape. And it can’t be even a possible shape if it’s not there at all. So if the shape “the cube” fails to exist in some possible world, this state of affairs we find ourselves in not only might not have been *actual* (everyone but Spinoza concedes *that*), it might not even have been *possible*. If the shape “the cube” could have failed to exist, then this actual state of affairs could have been impossible. But I affirm as a metaphysical axiom that if a state of affairs is actual, its being a *possible* state of affairs is one of its essential features: if a state of affairs is actual then it’s necessarily at least possible.

Or think of matters this way. According to orthodox Christian theology, God might have chosen not to create anything: he had absolute free will in the matter of creation. Well, suppose God had chosen that option. Then there would have been nothing besides himself. Since God is obviously not himself cubical, there would then be nothing cubical. Still—let us shift to the indicative mood—God knows about cubical things as possibilities. That is, he knows that he has the power to create a universe some of whose constituent objects are cubes. So he must know about the shape “the cube.” He *must* contemplate that shape and form the consequent judgment “I could have created things of that shape”—for the simple reason that if he did not contemplate that shape and form that judgment, he would not be fully aware

of every aspect of his power. And, of course, if God contemplates a shape, there *is* a shape that he is contemplating.

Now let us ask: did God create the shape he is contemplating—the cube? Well, obviously not if he has not created anything. And we are imagining a state of affairs in which he has not created anything. But let us leave that difficult case to one side and ask whether he created the cube in *our* world, in the actual world. Note that I’m not asking whether he created *cubes*. Of course he did—all of them. I’m asking whether he created the shape itself. Well, it’s certainly hard to conceive of God or any being *deciding* whether to create a shape. If the shape doesn’t exist, what is it that he’s deciding whether to create? And, in any case, it’s hard to see what it could mean to speak of creating a shape—as opposed to creating things *of* that shape. “Creation” after all, is a causal relation, and shapes can’t enter into causal relations. (Of course, the fact that a physical thing is *of* a certain shape can *figure in* causal explanations of the behavior of that thing; for example, an orange on a level table can be moved in every horizontal direction with equal ease because it’s a ball. But it’s things that *have* shapes that enter into causal relations. The shapes themselves don’t.) I conclude that shapes are not created things.

I am perfectly comfortable with saying both that shapes are uncreated *and*, as I do every Sunday, “We believe in one God, the Father, the Almighty, maker of heaven and earth, of all that is, seen and unseen,” and, a moment later (speaking of Jesus Christ) the words, “Through him all things were made.” I am comfortable affirming both that shapes are not brought into being by God *and* my allegiance to these words from the prologue to the fourth Gospel: “All things came into being through him and without him not one thing came into being.” I am comfortable with both my thesis and these words from creed and scripture for essentially same reason I am comfortable both with affirming, along with almost every other Christian philosopher and theologian, each of the following two theses.

There are many things God cannot do: he cannot create something that is simultaneously a ball and a cube; he cannot change the past; he cannot break a promise he has made (“If we are faithless, he remains faithful, for he cannot disown himself” (2 Tim. 2:13)); he cannot bring his own existence to an end.

*and* the proposition that the following Gospel passages are inerrant scripture:

For human beings such a thing is impossible, but for God everything is possible (Matt. 19:26)

... nothing whatever that God ordains shall be impossible (Luke 1:37)

No less a theologian than St. Thomas Aquinas has said, “Nothing that implies a contradiction falls under the omnipotence of God”<sup>3</sup>—and this statement certainly implies that, for example, God cannot create something that is simultaneously a ball and a cube. I think it would be absurd to say that these words imply that St. Thomas contradicted the words of Jesus—the words “For God everything is possible.”

Consider this analogous case. Suppose you heard a shopkeeper say, “What a day! We sold everything in the store.” And suppose you replied, “Oh, I don’t think you should have sold the counter and the cash register. How are you going to get along without those?” You would (if you got any reply but an odd look) almost certainly get a reply along the lines of, “I wasn’t talking about those. They weren’t for sale. I meant I sold everything that was for sale.” You would simply be being tiresome if you responded by saying, “But you said everything in the store, and *they’re* in the store. If you meant everything in the store that was for sale, why didn’t you say that?” In a similar vein, when Jesus said, “For God all things are possible,” he wasn’t talking about things like making a self-contradictory statement true or changing the past. He was, I presume, talking about things that would be of some interest to those of us who live in the Christian faith and hope.

In my view, when we say that God is the creator of all things, we are talking about things like seas and mountains and storms and the sun and the moon and galaxies and space and time and electromagnetic radiation and neutrinos and dark energy and angels and human souls. I don’t think that we mean—at any rate that we *have* to mean—that he is the creator of *abstract objects*, of things like propositions and attributes and numbers . . . and shapes.

Dr. Craig will try to convince you that that we have to mean just that. If he convinces you of this, I will try to unconvince you.

## Response to Bridges and Van Inwagen

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I take it that the first five-sixths of Peter van Inwagen’s paper targets Bridges’s so-called moderate realism, while the final sixth is directed at my theological critique of Platonic realism.<sup>1</sup> Since I think that van Inwagen has still not seriously engaged the biblical and patristic texts undergirding that critique, we can dispense quickly with his remarks on that head and spend most of our time on his defense of Platonism.

### Theological Acceptability of Platonism

Basically, van Inwagen just reiterates his earlier claim<sup>2</sup> that there is no inconsistency in affirming both that “God has created all things” and “There are things uncreated by God” because these quantified statements assume different domains. This situation is illustrated by the compatibility of Jesus’s statement “God can do everything” and the statement “There are things God cannot do,” statements whose quantifiers plausibly range over different domains. While I am tempted to comment on van Inwagen’s provocative illus-

ABSTRACT: Bridges’s “moderate realism” is really a misnomer, since Aquinas’s view was that mathematical objects and universals are mere *entia rationis*, making Bridges’s view antirealist. The metaphysical idleness of properties on van Inwagen’s view ought to motivate reexamination of his presumed criterion of ontological commitment. Regarding paraphrastic strategies, one can meet van Inwagen’s challenge to provide a nominalistically acceptable paraphrase of Euclid’s proof of exactly five Platonic solids. Concerning fictionalism, van Inwagen should allow the anti-Platonist to treat *abstracta* as he treats supposed composite, inanimate objects. Finally, van Inwagen too quickly dismisses the absolute creationist view that *abstracta* can be effects, if not causes.

1. See William Lane Craig, “God and Abstract Objects,” *Philosophia Christi* 17 (2015): 269–76; J. Thomas Bridges, “A Moderate-Realist Perspective on God and Abstract Objects,” *Philosophia Christi* 17 (2015): 277–83; and Peter van Inwagen, “Did God Create Shapes?,” *Philosophia Christi* 17 (2015): 285–90.

2. Peter van Inwagen, “God and Other Uncreated Things,” in *Metaphysics and God*, ed. Kevin Timpe (London: Routledge, 2009), 19.

3. *Summa Theologiae*, I, q.25, a.3, ad 4.