Anselm's Equivocation

by David Johnson

In an interview for *The Atheism Tapes*, from the BBC, philosopher Colin McGinn briefly discussed the ontological argument. He said, 'It is a brilliant argument, right, but it is wholly unconvincing to everybody who hears it. They think there is something going wrong with that, you know. That is a very strange argument.' Then Jonathan Miller, the interviewer, asked McGinn to explain what was wrong with the argument, and though he later gave a rough approximation of what he thought might be wrong with it, McGinn replied, 'Well, that is the difficulty, is nobody has ever managed to pinpoint exactly what is wrong with it.' This echoes comments from Bertrand Russell, who also famously said that it is much easier to be persuaded that ontological arguments are not any good than it is to say what exactly is wrong with them.

Nevertheless, after much thought on the subject, I believe that I have finally figured out precisely what is wrong with Anselm's original ontological argument. It can be a difficult argument to follow, so to make it easier to refer back to the original argument I am going to split it up into sections and give Anselm's original words in smaller type that is indented. Then I will give my interpretation of what he means in *italics*, and finally, I will discuss and critique that section of the text in regular font. The text originally comes from Anselm's *Proslogium* (also referred to as *Proslogion* in some sources) chapter II. There are multiple translations available, and there are some significant differences in them. I derived a fairly standard translation by combining many of them. I chose the phrases that were worded almost identically in multiple sources, in most cases, at least three. I also tried to give it the best rendering.

Here is Anselm:

Truly there is a God, although the fool has said in his heart: 'There is no God.'

Therefore, O Lord, do you, who do give understanding to faith, give me, so far as you know it to be beneficial, to understand that you are as we believe, and that you are that which we believe? And indeed, we believe you to be something of which nothing greater can be conceived.

Anselm shows with the first line that this is a proof for God's existence. He calls the unbeliever a 'fool' because of Psalms 14:1 in the Bible, and also because he is going to try to show how the unbeliever's reasoning is irrational. In the next portion he claims that God could be defined as 'something of which nothing greater can be conceived'.

Note that 'something of which nothing greater can be conceived' or sometimes translated as 'that than which nothing greater can be conceived' stands for God the actual entity here in the first paragraph. Should we really be assigning this title/definition to God when we do not yet know whether God exists? If the whole concept of God is merely a myth would we still want to assign it this title?

Or is there no such nature, since the fool has said in his heart: 'There is no God'? But surely when this very same fool hears my words - something of which nothing greater can be conceived - he understands what he hears, and what he understands is in his understanding, even if he does not understand it to exist.

Anselm asks: Does 'that than which nothing greater can be conceived' actually exist? Yes, at least in one way, because even an atheist comprehends the definition and concept of something 'than which nothing greater can be conceived', even if he does not believe that it exists as a being outside of his mind. So, at the very least it exists as a concept.

Here Anselm uses that key phrase 'that than which nothing greater can be conceived' to refer to the concept, or idea of God, instead of God the entity. Remember that he used the exact same term to stand for God the entity in the first premise. Here is where I wish to call foul. It

seems as though Anselm is equivocating with the phrase 'that than which nothing greater can be conceived'. Equivocation is an informal fallacy in which one uses the same term to refer to two different objects, or it could be two different meanings of the same word.

For example, if one said: 'Sandy told me that I looked really hot today. But I don't know why she said that, because actually the temperature was quite comfortable, and I wasn't sweating or anything.' The problem here, of course, is that there are at least two potential meanings for the word 'hot' and the person has misunderstood which one was intended. Sandy meant 'hot' to mean attractive, or good, while the speaker interprets it in a more literal way of referring to an actual temperature or physical state of feeling uncomfortably warm. I believe that one of the reasons the ontological argument can be so difficult to understand and interpret is because the same phrase is used to refer to two different things, and this ambiguity leads to confusion.

For, it is one thing for an object to be in the understanding, and another to understand that the object exists. For when a painter first conceives of what he will afterwards perform, he has it in his understanding, but he does not yet understand it to be, because he has not yet performed it. But after he has made the painting, he both has it in his understanding, and he understands that it exists, because he has made it.

Anselm uses the analogy of a painter to explain some distinctions. Whatever I can think about exists in my understanding even if it does not exist outside of that. The example here is an idea for a painting that has not yet been created. But after it has been painted, then we have two things in the understanding, the idea that inspired the painting, and the idea of the painting. The idea of the painting is simply a mental copy of the physical object in the world. Perhaps the atheist, with his idea of what he imagines God to be like, even though he does not believe in God, is like the artist with an idea for a painting that has not yet been created. So, we should distinguish between 'existing in the understanding' and 'understanding it to exist'. Unicorns,

dragons, and the tooth fairy 'exist in my understanding' because I understand what someone means when they refer to those things, but since I do not believe those things are real I would not say that I 'understand them to exist'.

The point of this whole section is to further support the notion that even the atheist has at least the conception of God in his mind. He wants to make sure that no atheist can squirm out of the argument by claiming that if they do not believe in God, the concept does not exist in their mind. It is likely that he takes such precautions because we learn in later portions of the *Proslogium* that one of Anselm's contemporaries, Gaunilo, tried to object to this very point, among his other more famous objections. Anselm thinks that it is self-evident that if you understand the concept of God, then God exists in your understanding, and he feels that all he needs is for you to say that God 'exists in the understanding' for his argument to work. So, he wants to make sure that any doubters out there are clear that he is not saying that you have to believe in it at this point, you only need to understand what the terms mean. He is basically saying something like: 'You don't need to believe it is real, just acknowledge that you can imagine something like that.'

Another interesting and important part of all of this is that Anselm is treating the understanding, or the mind, as an actual place where things go once they are understood. So, in some strange way (or at least it is strange to me), he seems to think that if I understand what the Sears Tower is, then the actual object itself resides in my mind in some way. It is not merely a representation of the Sears Tower, it is *the* Sears Tower. So, if this is what he believes, then he would not see it as an equivocation to refer to both the idea of God, and God the entity as 'that than which nothing greater can be conceived' because he treats them as being the same thing.

Nevertheless, because I do not agree with him on that point, I argue that it is, in fact, a form of equivocation.

Hence, even the fool is convinced that something exists in the understanding, at least, of which nothing greater can be conceived. For when he hears of this he understands it, and whatever is understood exists in the understanding. And assuredly that than which nothing greater can be conceived cannot exist in the understanding alone. For, suppose it existed in the understanding alone: then it could be conceived to exist in reality, which is greater.

We know 'that than which nothing greater can be conceived' exists at the very least in the understanding if we understand what those terms mean. Even the atheist has to acknowledge that. This is merely a restatement of what has already been shown with previous arguments and the painter analogy. However, it is also possible to imagine 'that than which nothing greater can be conceived' existing in reality. Notice that Anselm is not necessarily claiming that it does exist outside of the mind, but only that we can conceive of such a thing having existence outside of the mind. It is a greater thing if it is both 'in the understanding' and also 'understood to exist' than if it is in the understanding alone. Another way of saying this is that it is greater if it is real than if it is only imaginary.

By far the most common objection to Anselm's argument, first raised by Immanuel Kant, is that 'existence is not a predicate', which is an objection to this premise. Kant means that existence is not an additional property of a thing. By 'property' we mean an attribute or characteristic that something has. If we take money as an example, Kant would say that there is nothing about a real \$100 bill that makes it greater than an imaginary one. They are identical in all of their properties or they would not be identical concepts, and one could not serve as an idea representing the other. To say it exists simply acknowledges that there is a real instance of it. So, Kant thinks there is no reason to say that the real one would be 'greater' than the imagined one simply because it exists.

Kant may be right that adding existence to a concept does not necessarily make it greater conceptually than it was before. However, I do believe that if we were to rank things on a greatness scale, we would usually rank those that exist as being greater than those that do not. In that sense, I am sympathetic to Anselm's claim.

For example, say that I imagine a basketball player named Bob that is superior in basketball to any real player that has ever lived. Bob is 9 feet tall, he can run like a gazelle, and he handles the ball better than any point guard you have ever seen. Most importantly, he also never misses a shot; I mean never. Could Bob properly be considered the greatest basketball player ever? Of course not, because Bob is only imaginary! If you were playing a game and you could choose Lebron James or Bob to be on your team, who would you choose? Good luck with that, if you chose Bob, Lebron James could accurately be described as a basketball player of which none are greater, because he is almost universally regarded as being currently the best basketball player in existence. Bob would be a better basketball player if he existed, but since he does not, he is not better. In fact, probably any player that really exists is better at playing basketball than Bob is. Can you imagine the kind of resentment that professional basketball players would have if you started giving Bob MVP awards and endorsements? Now, maybe you could work something out to give him an imaginary MVP award, and that might be okay, but I digress. Anyway, the point is, to be in consideration for the title of 'greatest', or 'best', it has to exist. On that notion, I agree with Anselm.

Now, I know what you are thinking. You are thinking that Anselm has me right where he wants me now. You are thinking that if I admit that something would be greater, or could only be properly called 'the greatest', or an equivalent, if it has real existence, then I would have to

acknowledge that 'that than which nothing greater can be conceived' must have existence in order to be called 'that than which nothing greater can be conceived'. But this line of reasoning is entirely backwards. If I say that something, we'll call it x, is 'that than which nothing greater can be conceived' then I cannot reason based upon the label that I gave it that x must exist.

Instead, I should say that if it turns out that x does not exist, then I have simply mislabeled it.

Moreover, it is a misnomer of the highest order to refer to the mere concept of God as 'that than which nothing greater can be conceived' regardless of whether God the entity exists or not. You could call it 'the idea representing "that than which nothing greater can be conceived" if you want, but that is all. No one disputes, of course, that the object the idea refers to would be 'that than which nothing greater can be conceived', if there is such a thing, but you can only properly say that of the object itself, and then only if that object exists.

So, an interesting question arises: If there were no God, what would be the object that 'that than which nothing greater can be conceived' refers to? Maybe it would simply be an empty concept, but it seems as though it would probably refer to something. Well, the short answer is that I have no idea what it would refer to, other than to say that I guess it would have to be something that is the greatest thing imaginable which also actually exists. Perhaps it would be the universe. I don't know if that is what it would be or not, but let's use that as an example. Now, you might say: 'But it could not be the universe because I can imagine something that is greater than the universe!' If you were to say that, though, then you would be doing the same thing Anselm did, and once again confusing the content of an idea with the object that the idea refers to.

I could, of course, think of something that *would be* greater than the universe, if it existed: God would be greater, if God exists. But if God is nothing more than a fictional concept, and we are assuming for the moment that it is, then it would not be greater. Imagine, for example, that someone said the supreme god of the ancient Greeks, Zeus, was greater than the universe, and should have the title 'that than which nothing greater can be conceived'. Well, certainly no one argues for this, and there would be many reasons why Zeus could not be it. However, wouldn't your first and most prominent objection to that claim be that Zeus is only a myth? It would be mine. Now, in using that as an analogy, I am not necessarily saying that the idea of an omnipotent, omniscient, Judeo-Christian God is a myth, but only that if it was, that mythical being could not be 'that than which nothing greater can be conceived' no matter what properties it is purported to have in the myth. (It is not necessary to say that all real objects are greater than all objects that are merely fictional; my point is only that something which is merely fictional could not be considered 'that than which nothing greater can be conceived', for as Anselm pointed out, there is at least one thing that we can conceive of that would be greater.)

Therefore, if that than which nothing greater can be conceived exists in the understanding alone, the very being of which nothing greater can be conceived is one of which a greater can be conceived. But obviously this is impossible. Thus, without doubt, something of which a greater cannot be conceived exists both in the understanding and in reality.

Here is the ultimate conclusion of the argument. Notice that Anselm has not said that you need to believe that God is a real thing at this point, all he wants is your acknowledgement that if God really existed he would be greater than if he were merely imagined. But now, having acknowledged that God would have to be greater as a real entity than merely an idea, Anselm thinks that you have a real problem if you are an atheist. You call what is in your understanding 'that than which nothing greater can be conceived' and as an atheist you think that is the only

place it exists, but you also admit that you can conceive of something greater than it (that same thing, if it existed). So, your conclusion as an atheist is that you can conceive of something greater than 'that than which nothing greater can be conceived' and that is self-contradictory.

That is like saying that you can draw a square-circle.

Because the atheist's position has been found to be absurd, the only other alternative is that the opposing position, that God exists, must be true. One thing to notice here is that this is an indirect proof. Anselm does not ever, in this version of the argument, give you reasons for why God does exist. (Even when we said earlier that God would be greater if God had real existence, this is meant only conditionally.) Instead, Anselm is attempting to show that the atheist's position is incoherent. I find that interesting because at no point does the atheist need to believe any evidence or argument for God's existence in order for the proof to work. The argument's sole purpose is to show the atheist that his own reasoning is flawed.

This is a type of argument known as a *reductio ad absurdum*. What Anselm has done is to temporarily assume that his opponent's position is correct, and then attempted to show how this view would lead to a self-contradiction. If he can show that his opponent's position is contradictory then it cannot possibly be correct. If there are only two possible alternatives, and in this case, there are only two (either God exists or God does not exist), and Anselm has shown that his opponent's position cannot possibly be true, then this implies that the only other alternative must be true. That is, obviously, that God exists, and his true position.

However, is the atheist's position really self-contradictory as Anselm claims? It is in the way that Anselm formulated it. By referring to both the idea of God and God with the same phrase it appears as though the atheist is saying something like 'God, a being of unsurpassable

greatness' is greater than 'God, a being of unsurpassable greatness'. Nevertheless, I would argue that it is not a real contradiction, it only appears to be one because of the overly vague terminology. As I pointed out earlier, Anselm is treating the idea of something as equivalent to the thing itself. If you wish to treat the idea, and even the content of an idea, as a separate thing from the object it represents, as I am inclined to do, then the atheist's position is not self-contradictory. All that the atheist is really saying is that God as a real being would be greater than the mere idea of God. There is nothing contradictory about that. In fact, it is true, and something that Anselm would agree with. If this is true, and Anselm cannot show that the atheist's position is self-contradictory, then his whole argument breaks down. If the atheist's position has not been shown to be incoherent, then there is no reason to reject it, and that position is still just as viable as the claim that God exists.

As a matter of fact, I think it is actually Anselm who has the contradictory position. He defined something which exists 'in the understanding alone', which means that it does not exist as more than an idea (think about his example of the painter's idea for a painting before it has been created) as 'that than which nothing greater can be conceived' while also claiming that a thing is greater if it is also 'understood to exist', or exists outside of the mind as well. Those premises contradict each other. A fictional being could not properly be referred to as 'that than which nothing greater can be conceived'. Equivocation on key terminology is what is really wrong with the ontological argument.

Supplement Added: 7/30/14

I still agree with most of what is said above. However, it has occurred to me that I could explain my objection to the ontological argument in a different way, and perhaps doing so would make it more clear. I'll start with some additional thoughts on Kant's objection.

Kant argued that 'existence is not a predicate'. A predicate is a characteristic, property, or trait that the subject is claimed to possess, or to lack. For example, in 'John is tall' or 'John is not tall' John is the subject and tall is the predicate. Kant's objection is in response to Anselm's premise that 'that than which nothing greater can be conceived' would be greater if it existed in reality than if it is merely imagined. Kant claims that if you are going to say that an object is greater than the corresponding idea of that object, then there must be some reason why, and it could only be because the object has some additional predicate that makes it greater. But if the object had a predicate that the concept did not have, then the concept would not accurately represent the object. Kant used money as an example. The concept of one hundred thalers (a type of currency) is exactly equal to the object. If the concept was worth less, say if it was only worth 99 thalers, then it would correspond to a different object (namely 99 thalers). Or if the concept of 'John' is not quite as tall as the real thing, then it is not really a concept of 'John' at all. The two must have identical predicates if the idea truly represents the object.

Anselm thought that one cannot say that 'that than which nothing greater can be conceived' is merely imagined because it would result in a contradiction. You would be saying that the concept that is in your understanding is 'that than which nothing greater can be conceived' while at the same time admitting that there could be something greater than it (the same thing in reality), and that is absurd. Kant's objection, as I understand him, is that the object, if there is one, would be no greater than the concept. The two would have to be exactly equivalent. So for Kant, to acknowledge that the object could possibly exist in reality would not be saying that there could be something greater than the concept, it would only be saying that there could be something that is equal to it, and there is no contradiction in that. Because there is no true self-contradiction in the atheist's claims, the *reductio ad absurdum* fails and we are not forced to conclude that the opposite position is true.

¹ Here is some of what Kant actually says: 'Thus the real contains no more than the possible. A hundred real thalers contain no more than a hundred possible thalers. For as the latter indicate the conception, and the former the object, on the supposition that the content of the former was greater than that of the latter, my conception would not be an expression of the whole object, and would consequently be an inadequate conception of it . . . It does not matter which predicates or how many of them we may think a thing possesses, I do not make the least addition to it when we further declare that this thing exists. Otherwise, it would not be the exact same thing that exists, but something more than we had thought in the idea or concept; and hence, we could not say that the exact object of my thought exists. On the contrary, it exists with the same defect with which I have thought it, since otherwise what exists would be something different from what I thought.'

Some modern philosophers have argued that even if Kant is right that existence is not a predicate, necessary existence would be. It is true that a necessary being would be greater than something with contingent existence, but this does not refute Kant's objection. He knew what the concept of necessary existence was. In fact, Kant probably gave the best definition of it out of anyone when he simply said that a necessary being is 'something for which nonexistence is impossible'. He probably thought of 'that than which nothing greater can be conceived' as a necessary being. But that does not make any difference to his argument because the concept would have all of the same predicates that the actual being would have, including necessary existence. So the object would not be greater than the corresponding concept of it, and the same objection still applies.

Nevertheless, I am not in full agreement with Kant's position myself, though for different reasons. Yes, an object and the concept that represents it must have matching predicates in order to correspond with each other, but matching is not the same as identical. If you were standing near a pool of relatively still water you would see reflections of everything that is around the water, such as grass, trees, and clouds. These reflections would be a nearly perfect likeness of the original, but what is really there? The reflection is only an appearance of the real thing, not an exact duplicate. If you had a photo of a ball, and compared it with the actual ball, the two would have exactly matching predicates. But while the real ball is round, the ball in the photo only has the appearance of roundness, because it imitates the values, colors, and shapes that are seen on the real thing. So would it be accurate to say that the ball in the photo has the predicate of roundness? I suppose, but it is only a representation of roundness, not the real thing.

Is it reasonable to say that the real thing is greater than something which is merely a representation of it? I think so. Perhaps this is too Platonic for some, but a reflection, for example, just seems more illusory. The object can exist without the reflection, but the reflection exists only because the object does, and cannot exist independently of it. The original is greater than a copy. An Elvis impersonator is never going to be as good at being Elvis as the real Elvis.

Mental representations are of course different than photos and reflections, but I think the same principle applies. A mental representation of a being that is omnipotent and omniscient does not really have those properties any more than a photo of a ball has the property of roundness. Furthermore, what if 'that than which nothing greater can be conceived' actually exceeded human conceivability? If the real thing was beyond human comprehension, it would have to possess predicates that the concept did not have, or it would have them to a greater degree.

Even more significant, I also think that Kant is slightly misinterpreting Anselm's argument. Kant sees it as a comparison between an object and its corresponding idea, but it must be remembered that earlier in the argument Anselm made three different distinctions, not just two. He said that an artist with an idea for a painting that he had not yet created had the idea of it in his understanding. Then after he paints it, the actual painting exists in reality (Anselm's term is that he 'understands it to exist' or 'understands it to be'), and the corresponding idea of that object exists in his understanding. So at that point two different ideas of the painting would exist in the

artist's understanding. I think Kant is interpreting the argument to be saying something equivalent to once the painting has been completed, the object that exists in the external world would be greater than the content of the corresponding idea that represents it, and that is what he objects to. But what Anselm is really saying is that the actual painting, and its corresponding idea in the understanding, would be greater than the idea that the artist had for it before he painted it. This is obvious from the fact that he asks us to consider the implications if it existed 'in the understanding alone'. If he meant the idea that corresponds to an external object, then it would not be in the understanding alone, it would be both 'in the understanding' and also 'understood to exist'. The true comparison then, is between an actual object and something which is merely imaginary. This is significant because we may be more inclined to say that an object in reality is greater than a fictional idea in the understanding alone even if we would not grant that an object in reality is greater than its corresponding idea in the understanding. Kant treats those claims as though they were the same, but they are not. As an artist I can tell you that the final product often has many additions, corrections, and improvements that the initial idea did not have. As the multiple revisions of this essay indicate, an idea can evolve significantly as it is brought into fruition. The final product would not have predicates that match exactly the predicates of the initial idea. It seems to me that it would also be true that a vague concept of God, not produced through sense experience (one would assume that the atheist has never perceived God), would not necessarily have predicates that match exactly those of the actual being, if indeed there is an actual being. What if God looked different than how the atheist had imagined? Any slight difference would mean that the predicates of the atheist's concept of God would not match exactly the predicates of the actual being.

To paraphrase Anselm's argument: God is 'that than which nothing greater can be conceived'. It is a known fact that there exists in the mind the concept of 'that than which nothing greater can be conceived'. How was such a concept acquired? There are only two possibilities: either it is a mental representation of a real object, or it is merely imaginary. If it is a mental representation of a real object, then the object is God, and we know that God exists. But what if it were only imagined? Well, one cannot say that 'that than which nothing greater can be conceived' is merely imaginary, because it is possible (meaning that it is not contradictory) that such a thing could exist in reality, and if it did, that thing would be greater than what is imagined. But it is self-contradictory to say that there could be something greater than 'that than which nothing greater can be conceived'. So it is absurd to claim that 'that than which nothing greater can be conceived' exists in reality as well as the understanding.

Anselm believes that the atheist's position is self-contradictory, but in reality, it is his own. He refers to something that exists in the understanding alone as 'that than which nothing greater can be conceived' while at the same time saying that it would be greater if it existed in reality. He needs to give up at least one of those claims because both of them cannot be true at the same time. I think Kant would say that he ought to give up the latter, whereas I believe it should be the former.

Let us assume that the claim 'if "that than which nothing greater can be conceived" existed in reality, it would be greater than if the same were merely imagined is true. A logical implication of this is that x could be 'that than which nothing greater can be conceived' only if x exists; or, in other words, existence is a necessary condition to qualify for that title. So if it turns out that, as a matter of fact, x is merely imaginary then it cannot be correctly referred to in that way. Anselm thinks that if there is no actual being in reality then the concept of God in the understanding alone would have to be 'that than which nothing greater can be conceived' but if the term really does entail existence then it cannot refer to something that does not exist. The actual being may be that, but if there is no such thing, then a fictional concept of God would not be. As Anselm himself points out, we can conceive of at least one thing that would be greater than the fictional concept, so it cannot be called 'that than which nothing greater can be conceived'.

I must admit, though, that I am not entirely sure what the term would refer to if there is no God. It might refer to the greatest actual object that exists in reality, or maybe it would have no referent at all. Perhaps the term has 'sense without reference' and represents an empty category similar to Frege's example of 'the greatest integer'. But in any case, a fictional concept in the understanding alone could not properly be referred to in that way.

Now, to be clear, I do not mean the idea in the understanding that would correspond to an external object in reality. My claim is not necessarily that if there is a God it would be incorrect to refer to the corresponding idea of that being in the understanding as 'that than which nothing greater can be conceived'. In that case, the necessary condition would be met, because the idea would correspond to an object that does exist in reality. One might argue that if God is 'that than which nothing greater can be conceived' then the idea of God that corresponds to it in the understanding could also be referred to in that way. But even if you thought that we could refer to an idea of an object in exactly the same way that we refer to the object itself, which seems somewhat dubious to me, that is really beside the point in any case. My argument is that it would not be correct to say that of an imaginary being. At most one could only refer to something that exists in the understanding alone as 'that which would be "that than which nothing greater can be conceived" if it existed in reality'. But of course it does not exist in reality, so it is not 'that than which nothing greater can be conceived'. In sum, if there is a God that exists in reality then the being itself, and perhaps the idea of that being, may indeed be considered 'that than which nothing greater can be conceived', but if there is no God in reality then the idea of God in the understanding alone is not that.

If different terms were used to refer to God and to the fictional idea of God there would be no *reductio ad absurdum* for the atheist because he would not be saying that there could be something greater than 'that than which nothing greater can be conceived', he would simply be saying that there could be something greater than 'the imaginary idea of something that would be that than which nothing greater can be conceived if it really existed', which of course is not a self-contradictory position. All he would be saying, essentially, is that if there is a God then the actual being would be greater than a fictional concept of God. Not only is this not a self-contradiction, it is in perfect harmony with Anselm's claim that the thing would be greater if it

existed in reality and in the understanding rather than if it was in the understanding alone. Since the atheist's position has not been shown to be self-contradictory, it cannot be considered absurd, which means that it is still possible that the atheist is correct, and the argument fails as a proof that God exists.

Minor revisions in 2016 and 2019