

Leibniz



1646-1716

THE MONADODOLOGY

GOD AND THE PRINCIPLE OF SUFFICIENT REASON

I. The Two Great Laws (#31-37):

A. The Law of Non-Contradiction: $\sim(p \ \& \ \sim p)$

No statement is both true and false.

1. The Law of the Excluded Middle: $(p \ \vee \ \sim p)$

Every statement is either true or false.

2. Truths of Reason and Matters of Fact:

a. Truths of Reason: $(\Box p \ \vee \ \Box \sim p)$

Every truth of reason is either necessarily true or necessarily false.

b. Matters of Fact: $\sim(\Box p \ \vee \ \Box \sim p)$

so $(\Diamond p \ \& \ \Diamond \sim p)$

Every matter of fact is both possibly true and possibly false.

B. The Principle of Sufficient Reason (#36):

Every matter of fact has an explanation.

There is a problem with PSR here. Is it a Truth of Reason or a Matter of Fact?

Savile, in his book, Leibniz and the *Monadology*, suggests that it might be a sort of pragmatic principle. But this doesn't help because on Leibniz's view every truth is either a Truth of Reason or a Matter of Fact. So which is it?

It doesn't seem to be a Truth of Reason, however, because its denial is not a contradiction. (Couldn't there be a fact that didn't have an explanation?) But then its denial is possible.

However, then, on Leibniz's own view, there must be a reason for it. But this seems to simply presuppose what we are trying to prove. So we are evidently involved in a vicious circle.

II. An Important Consequence:

The Identity of Indiscernibles (#9)

A. This principle follows from the Principle of Sufficient Reason. If “two” things had all the same properties there would be no reason for one of them to exist and not the other. But this violates PSR.

B. Note here that Leibniz holds this principle in a very strong form. He isn't just maintaining that the relational properties of “two” objects must differ. The internal properties of “two” monads cannot be the same.

“... there never are two beings in nature that are perfectly alike, two beings in which it is not possible to discover an internal difference, that is, one founded on an intrinsic denomination.”

III. Proofs for the Existence of God:

A. The Argument from Contingent Beings (#37 & 38):

1. The Argument:

P1) At least one contingent being exists.

P2) There must be a reason why it exists. [from PSR]

P3) No contingent being or series of contingent beings can explain their own existence.

C1) So a being outside the series that explains it must exist.

P4) If that being were not a necessary being it would be possible for it not to exist. But then it would need a reason for its existence.

C2) Therefore a necessary being (=God) exists.

2. Comments:

- a. As it stands the argument doesn't prove God exists as a necessary being unless PSR is a Truth of Reason. If it is a contingent truth all we have is that if at least one contingent being exists and if PSR is true, God exists as a necessary being.
- b. However, Leibniz makes an important advance on the cosmological proof here because he realizes that it depends on PSR.
- c. One might question the move to C1 on the grounds that all Leibniz has shown is that there must be something that explains the existence of these contingent beings, but not that this must itself be a being. But Leibniz will argue that only an active being can cause things to exist or be a sufficient reason for their existence.

B. The Argument from the Possibility of God's Existence (#45):

1. The Argument:

P1) A necessary being is a possible being.

P2) If a necessary being is a possible being then a necessary being exists.

C) God (= a necessary being) exists.

2. The Justification of P2:

$\diamond p \rightarrow \square \diamond p$

Axiom S5

$\sim \square \diamond p \rightarrow \sim \diamond p$

By Contraposition

$\diamond \square \sim p \rightarrow \square \sim p$

QEQ

$\diamond \square p \rightarrow \square p$

Substitution of p for $\sim p$.

I.e., if it is possible for a necessary being to exist, then it exists!

Note: Leibniz is making an important advance on the ontological proof for the existence of God here. Why? Because he is noticing that if the concept of God is contradictory it will indeed follow that God exists, but only because anything and everything follows from a contradiction. So any and every ontological proof must also show that God is a possible being. And that is something that neither St. Anselm's nor Descartes' ontological proofs do. As Leibniz himself pointed out in one of his letters:

“... we cannot safely infer from definitions until we know that they are real or that they involve no contradiction. The reason for this is that from concepts which involve a contradiction, contradictory conclusions can be drawn simultaneously, and this is absurd.”

So establishing P1 above is absolutely critical. How does he try to do it?

3. Proofs of P1:

a. A Modal Proof of the Possibility of God:

P1) If a necessary being is not possible, no being is possible.

Justification: If there were no necessary being there would be no answer to the question, “Why does the world exist?”

P2) If the definition of a concept is non-contradictory, then a being that exemplifies that concept is possible.

P3) There are instances of definitions of concepts which are non-contradictory (e.g., a circle).

C1) A being that exemplifies the concept of a circle is possible.

C2) Some being is possible.

C3) A necessary being is possible.

[from P1 and C2 above]

Note that his proof of P1 above rests on PSR!

b. The Proof from Affirmative Simples:

P1) The concept of an absolutely perfect being is consistent iff the combination of all perfections in one being is consistent.

P2) The combination of all perfections in one being is consistent iff, for any two perfections, A and B, “A and B are incompatible” is not a necessary truth.

P3) For any two perfections, A and B, “A and B are incompatible” is not a necessary truth iff this proposition neither is, nor is reducible to, an identity.

P4) But, for any two perfections, A and B, “A and B are incompatible” is not an identity.

(For if it were, A and B would express the negation of the other, which is contrary to the hypothesis that perfections are purely positive.)

P5) And, for any two perfections, A and B, “A and B are incompatible” is not reducible to an identity. (For a reduction requires the resolution of at least one of the terms, which is contrary to the hypothesis that perfections are simple.)

C1) Hence, for any two perfections, A and B, “A and B are incompatible” is not a necessary truth.

C2) Therefore, the concept of an absolutely perfect being is consistent.

Some Possible Objections to this Proof:

1. Note that P4 and P5 rest on the assumption that divine perfections are affirmative and simple. His view then is that two perfections could be incompatible only if one could contain the exclusion of the other. But this could only happen if either one contained the exclusion of the other, or if one was the negation of the other. This seems to me to overlook the possibility that a perfection might be simple and positive, yet be internally inconsistent. Consider the concept of being omnipotent and ask whether God could create a rock so big that no one could move it.

2. There seems to be a problem here with the claim that “Divine perfections A and B are compatible.” Is this a logical truth or a contingent truth? He evidently cannot maintain the former because he maintains that such propositions cannot be demonstrable because a simple quality cannot be the basis of an analytic demonstration. But if he maintains that it is contingent, then it is possibly false. However, then there is a possible world in which A and B conflict.

c. Proof from the Compatibility of Simples:

P1) “Some perfections are incompatible” is neither self-contradictory nor demonstrable.

P2) A statement is necessarily true only if its truth is either self-evident or demonstrable.

C1) Therefore, “some perfections are incompatible” is not necessarily true.

C2) So “all perfections are compatible” is not necessarily false.

C3) Therefore, “all perfections are compatible” is possibly true.

C4) Hence, “God exists” is possibly true.

Note: This is a simplified version of b above.

Some Comments on this Proof:

In the last argument above, C1 entails that “Some perfections are incompatible” is possibly false. Is it then a contingent statement (i.e., one that is also possibly true), or is it necessarily false? Suppose it is contingent: then there is a possible world in which it is true. But then God can’t exist in that world, so he is not a necessary being. So the claim must be necessarily false. But Leibniz seems to be committed to denying this because he maintains that the divine perfections are unanalyzable (since they are simple concepts).

The same problem arises with P1 in the modal proof. Moreover, as we noted above, Leibniz clearly assumes that no single positive attribute can be inconsistent.

So why does God exist? For Leibniz the answer to this is simple. God exists because God must exist. PSR and the proofs above provide the explanation. And if you don't accept PSR how can you even ask the question?

Note:

In modern times many philosophers, including Goedel and Plantinga, have adopted Leibniz's strategy here of trying to argue using sophisticated modal logic first, that God possibly exists, and then, that if he possibly exists he must exist. So Leibniz has had an important influence in this area.

IV. God's Nature:

A. Why is there only one God?

The answer to this depends on the Identity of Indiscernibles.

If there were another God he would have the same characteristics that God has. But in that case they would be indiscernible, and hence identical.

B. What are his attributes?

1. God is unlimited perfection (#41)
2. God is the only being that must exist if he can exist. (#45)

According to Leibniz, “X is necessary” is contradictory for any concept other than God because definitions are conditionals which state that if something answering to the definiendum exists, it will have the properties of the definiens.

3. God is the original simple substance. (#47)

4. God is all-powerful, all knowing, and his will operates according with the principle of the best. (#48)

V. The Principle of the Best:

God creates the best of all possible worlds.

“And this is how as much variety as possible is achieved, though with the greatest possible order, that is to say, it is the way of obtaining as much perfection as possible.” (#58)

There is a problem here. Unless God's benevolence is something that belongs to his nature only contingently, it seems that he has no freedom to create a world other than the best possible one. But then there would be no sufficient reason why he created this world, rather than some other world, or none at all. Yet Leibniz maintains that God is inclined but not necessitated to create this world.

When Leibniz claims that this is the best of all possible worlds it seems that he is not thinking that this is a world which maximizes happiness of rational beings. So, at one point in the *Theodicy* he responds to Bayle that, “... the author is still presupposing that false maxim ... stating that the happiness of rational creatures is the sole aim of God.” Rather, he is evaluating the goodness of a world in terms of maximizing the variety of phenomena it contains with the simplicity of its laws.

In case you feel inclined to object to Leibniz’s claim that this is the best of all possible worlds on the grounds that the love of your life just dumped you, or that Hitler killed 9 million Jews, just remember how difficult the task must have been. From an infinite number of internally consistent possible worlds God needed to/chose to select that world containing the greatest number of substances with the greatest variety and the fewest and simplest set of laws governing it, and PSR tells us that there was only one such world—the actual world! Aren’t we lucky!

MONADS AND MATTER

THE INDISCERNIBILITY OF IDENTICALS

If x is identical with y then every property of x is a property of y.

Note: The converse of this, sometimes referred to as the *Non-Identity of Discernibles*, says that if x and y don't have exactly the same properties then they are not identical.

Leibniz is employing this principle on p. 211, for example, when he says that:

“... he would not have been our Adam, but another Adam, had other events happened to him, for nothing prevents us from saying that he would be another.... But at bottom, because of the interconnection of things, the whole universe with all its parts would be quite different and would have been different from the beginning, if the least thing in it had happened differently than it did.”

When this principle gets combined with the Identity of Indiscernibles it is natural to identify an object with its properties.

There are two different theories about the nature of substances.

One theory, I sometimes refer to as “The Pincushion Theory,” views a substance as something more than just a collection of its properties. The substance is the thing in which its properties inhere (analogously to the way in which pins inhere in the pincushion). As we will see, on the traditional interpretation of Locke, this is his view.

On the Pincushion Theory it would be possible for two different objects to have all the same properties.

This theory is committed to denying the Identity of Indiscernibles.

The other theory views a substance as nothing more than a collection of its properties.

On this theory it is impossible for two different objects to have all the same properties. And this is Leibniz’s view.

Whose right? Can two different objects have all the same properties?

If you include relational properties like ‘being-identical-with-x’ in the list of “properties,” the answer is no, since one of the relational properties x has is the “property” of being-identical-with-x. But if every property of x is a property of y, y will have this property too, so it can’t be different from x.

But Leibniz’s claim here is stronger than this. His claim is that two different objects cannot have all the same *internal* properties.

“For there are never two beings in nature that are perfectly alike, two beings in which it is not possible to discover an internal difference, that is, one founded on an intrinsic denomination.” [#9]

Were it even possible for two such beings to exist there would be no reason for one to exist rather than the other, and this would violate the Principle of Sufficient Reason.

MONADS

This leads Leibniz to formulate a principle referred to as the *Predicate-in-Notion Principle*:

“In every true affirmative proposition, whether it be necessary or contingent, universal or singular, the notion of the predicate is contained either explicitly or implicitly in that of the object. If it is contained explicitly the proposition is analytic; if only implicitly, it is synthetic.”

We have here, then, a first characteristic of the basic units of Leibniz’s ontology. In his later writings he calls them “monads”.

1. Monads contain all of their properties from the beginning to the end of their existence.

The next thing we are going to discover is that they cannot be extended.

P1) If the monads are extended then they are divisible.

Leibniz's proof of this proceeds as follows:

Take anything that is extended. Let it stretch from A to C in one dimension and from A to E in another. On the line AC there must be an intermediate point B, and on the line AE there must be an intermediate point D. A triangle ABD can always be constructed whose extension is smaller than the initial extended figure. [p. 211]

P2) No divisible thing can be a genuine substance.

Consider the rope example on p 223. The rope is divisible.

It can be divided into strands. But it depends on its existence for the existence of the strands. And a genuine substance is something capable of an independent existence.

P1) If the monads are extended then they are divisible.

P2) No divisible thing can be a genuine substance.

In a letter to Burcher de Volder, June 30, 1704, he elaborates on this justification of P2:

“Any thing that can be divided into many (which already actually exist) is an aggregate of many, and a thing that is an aggregate of many is not one except mentally [i.e. except insofar as we think of it as unified], and has no reality that is not borrowed from the things contained [in it]. Hence I infer therefore that there are indivisible unities in things, since otherwise there will be no true unity in things, and no reality not borrowed. That is absurd. For where there is no true unity, there is not true multitude. And where there is no reality that is not borrowed, there will never be any reality, since it must belong ultimately to some subject...”

C) So monads are neither divisible nor extended.

We now have a second important feature of monads, referred to in #1-3:

2. Monads do not have parts and are not divisible.

And since all material things are divisible, monads cannot be material things. And this entails that no body is a monad.

P1) Monads are not material things.

P2) Simples cannot exist other than as wholes.

He justifies this by explaining in the famous quote to Arnaud that “**What is not truly *one* being is not one *being* either.**” [p. 221]

C1) No material things can be simples.

C2) So no body is a simple.

C3) So no body is a monad.

But couldn't monads be mathematical points? No. Why not?

Because mathematical points are undifferentiable. But each monad must be internally different from every other monad. PSR requires this.

And now we come to another key claim about monads:

3. Monads have no windows.

What he means by this:

No monad has a causal influence on any other monad. Moreover, although they can be created or destroyed by God, monads are immune from corruption and generation.

This pretty much completes the points made in the Monadology #1-8, and Leibniz's account of what monads are not.

In #9-13 he tells us something of what they are.

MONADS AND CHANGE

P1) Every created thing is subject to change.

P2) Monads are created things.

C1) So monads change.

P3) But, because they are not affected by external things, they must derive their change from an internal principle.

C2) So monads are entelechies (i.e., things whose changes are due to an active internal principle).

The picture you get here, I think, is that monads are like little springs. God creates them and they unwind, exhibiting first one property and then another. But their change is always gradual.

Kinds of Monads (#14-19):

1. Naked (bare) monads: These possess only perception. They have no self-conscious reflection and no memories. Their life is like being in a dreamless sleep. (This is the origin of the idea of an unconscious awareness.)

2. Souls: These possess apperception (an inclination to move from one representation to another). They have memories and recognize that they strive. Animals possess apperception.

3. Spirits: These possess reason. They have knowledge of necessary truths.

MATERIAL BODIES

How does Leibniz get from monads to the external material world? This is one of the most difficult and hotly debated issues in interpreting Leibniz.

There are two fundamentally different theses:

I. The Phenomenological Thesis

The external world is just the totality of perceptions of it that monads have. Since each monad perceives the entire world, however dimly, each perceives the same external world. So matter is a logical construction of the perceptions of monads.

(See Furth, “Monadology” in Frankurth, Leibniz: A Collection of Critical Essays.)

Imagine the monad as an enclosed room with a screen. Each monad has a body in the sense that it perceives things from a particular point of view. On my screen there is a tree to the right, while on your screen the “same” tree is to the left. The objects on the screens are infinitely divisible. They are not monads.

We might argue for this view as follows:

P1) Bodies are extended, hence, divisible, and so have parts.

P2) Monads have none of these characteristics.

C1) Therefore monads are not bodies.

P3) In the Leibnizian universe all reality, at bottom, consists in the reality of the simple substances (monads).

C2) So the bodies must be “phenomena belonging to perceivers”—i.e., mere appearances.

But there is a problem with this interpretation. It commits us to denying that monads are the ultimate constituents of matter. Matter is not made up of monads.

And in letters Leibniz denied that this was his view. It is also at variance with the Monadology #2, where he says that:

“And there must be simple substances, since there are composites; for the composite is nothing more than a collection, or *aggregate*, of simples.”

Nevertheless, there is a rather lengthy passage from an unpublished paper entitled “On the Method of Distinguishing Real from Imaginary Phenomena” published in 1683, explaining how we are supposed to do science and distinguish real from imaginary phenomena on this view.

“A phenomenon will be congruous when it consists of several phenomena for which a ground can be given for each from the others, or from some common hypothesis that is simple enough; next, it will be congruous if it keeps the custom of other phenomena that have occurred to us frequently, so that the parts of the phenomena have the same position, order, and outcome that similar phenomena have had... Likewise if a ground for this [phenomenon] can be given from those that precede, or if they all fit the same hypothesis as a common reason. The strongest

evidence, however, is surely agreement with the whole series of life, especially if most other [people] affirm that the same thing agrees with their phenomena too, for it is not only probable but also certain, as I will soon say, that there exist other substances like us. But the most powerful evidence of the reality of phenomena, which even suffices by itself, is success in predicting future phenomena from past and present ones, whether that prediction is founded on reason or a hypothesis that has succeeded thus far, or on a custom that has been complied with thus far. Indeed even if it were said that this whole life is nothing but a dream, and the visible world nothing but a phantasm, I would call this dream or phantasm real enough if we were never deceived by it when we used our reason well.”

II. The Aggregate Thesis

Material objects are aggregates of monads. Though they do not have a position (or extension) they have a derived position based on their perceptions, and though they have no windows their representations are representations of a shared world. (Leibniz is not a solipsist.)

What the soul perceives as its body is really an infinite aggregate of body monads working harmoniously together. Its perception of this aggregate is related to the aggregate as a rainbow is to drops of water that make it up. We perceive the aggregate only.

There are several different versions of the Aggregate Thesis:

1. *The Misperception Interpretation*: We misperceive the aggregate of monads as being bodies in much the way that we misperceive a rainbow as a thing distinct from the rain drops that make it up.
2. *The Essence View*: The essence of material bodies is just that they are infinite aggregates of monads.
3. *The Mereological View*: On this view, aggregates are mind independent wholes of which monads are their parts.
4. *The Lodge View*: They are produced through the activity of finite minds.
5. *Rutherford's View*: Aggregation is constituted by nothing more than the perception of relations, and God's perception is the ground of all relations.

My Quick Critique of these Views (for what it's worth):

First, I don't understand at least some of these aggregate views. Monads don't have windows. So they can't perceive other monads, and therefore can't misperceive aggregates of other monads. And, since God is pure act, I'm not sure how he is supposed to be capable of perceiving anything, including relations. Moreover, monads are not extended, so how can they be parts of mereological wholes, and how can the essence of material bodies, which are, in some sense, extended, be infinite aggregates of monads?

On the other hand, I don't see the Lodge View as necessarily incompatible with my phenomenological thesis.

My Own View (for what it's worth):

According to Leibniz, monads have both an active and passive aspect. As passive they reflect the world, each from their own point of view. As active substances they have desires. Their

desires appear to cause changes in their perceptions. It is this, and the fact that they all perceive the “same world,” though from different perspectives, that “creates” the external world. Although monads are not extended and don’t occupy space, they do have a derived position in the sense that their point of view is “located” in one “place” rather than another. Though each monad’s point of view is unique to it, its point of view can be mapped with other monad’s points of view into a single sort of hologram. When a monad experiences a collection of “pixels” on its screen, though it doesn’t have a clear experience of each “pixel,” it misrepresents the totality as a rainbow (i.e. hologram), and when other monads do the same their perceptions are “veridical.” If one monad’s point of view doesn’t map onto the points of view of others, it is experiencing a hallucination. If there were not an infinite number of monads having mapable points of view there would be no hologram. In this sense space is relative. Note also that at any given time a monad’s “body” is just its point of view.

In a letter to Volder and in #56 and #57 Leibniz clarifies some of this.

“Properly speaking, matter isn’t composed of constitutive unities (monads), but results from them, since matter, that is, extended mass is only a phenomenon grounded in things, like a rainbow or a perihelion, and all reality belongs only to unities.”

“Now this interconnection and accommodation of every created thing to every other, of all to each, gives every simple substance relations that express all the others so that each one is a perpetual living mirror of the universe.” [#56]

“And just as the same town appears quite different as it is viewed from different sides and is, as it were, perspectively multiplied, so it is that in virtue of the infinite multitude of simple substances it appears as if there are so many different universes, which in fact are nothing other than aspects of the same one according to the different points of view of each monad.” [#57]

SOULS AND BODIES

A body is associated with each monad, and that monad is the entelechy of that body.

“... although each created monad represents the whole universe, it more distinctly represents the body which is particularly affected by it, and whose entelechy it constitutes. And just as this body expresses the whole universe through the interconnection of all matter in the plenum, the soul also represents the whole universe by representing this body, which belongs to it in a particular way.” [#62]

And just as each monad represents the body which belongs to it, so too each body expresses physically the contents of the monad to which it belongs.

And here we get to see part of what I really like about Leibniz. He has a tendency to solve philosophical problems with a meat axe.

Why doesn't he have Descartes' problem of how minds and bodies interact?

Because they don't!

“The soul follows its own laws and the body also follows its own; and they agree in virtue of the harmony pre-established between all substances, since they are all representations of a single universe.” [#78]

“Souls act according to the laws of final causes, through appetitions, ends, and means. Bodies act according to the laws of efficient causes or of motions. And these two kingdoms, that of efficient causes and that of final causes, are in harmony with each other.” [#79]

“According to this system, bodies act as if there were no souls (though this is impossible); and souls act as if there were no bodies; and both act as if each influenced the other.” [#81]

And this also solves the problem of other minds.

How do we know that the other fellow is in pain, when all we see is his body writhing around?

Each body is associated with one soul, and the body expresses physically everything mental that goes on in the soul.

But doesn't this imply that each soul is always associated with the same portion of matter?

No.

“... we must not imagine, as some who have misunderstood my thought do, that each soul has a mass or portion of matter of its own, always proper to or allotted by it, and that it consequently possesses other lower living beings, forever destined to serve it. For all bodies are in a perpetual flux, like rivers, and parts enter into them and depart from them continually.” [#71]

“Thus the soul changes body only little by little and by degrees, so it is never stripped at once of all its organs.” [#72]

“There is often metamorphosis in animals, but there is never metempsychosis nor transmigration of souls; there are also no completely separated souls, nor spirits without bodies. God alone is completely detached from bodies.” [#72]

Incidentally, this last claim suggests to me that Rutherford’s view of the Aggregation Thesis, which we briefly mentioned earlier, is mistaken. For Rutherford claims that God’s perception is the ground of all relations. But perception is a passive aspect of monads, and God is, for Leibniz, as “he” was for Aristotle, pure act.

SOME PROBLEMS WITH LEIBNIZ'S VIEWS

FREE WILL

Leibniz tries to solve the problem of free will by making a distinction between certainty and necessity. Though it is certain that I will do x in the future, my doing x is not necessary. Future contingents are not necessary because their contrary does not imply a contradiction.

a. But one might wonder, here, whether or not this really gives Leibniz an adequate concept of free will. Is “x will certainly do y, but x might not (in a merely logical sense) have done it” sufficient to establish that “x was free with respect to doing and not doing y”?

b. On the other hand, I don't think he has a serious difficulty with the problem of free will and determinism. The material world is, for him, as for Newton, completely determined. But, thanks to the Doctrine of Pre-established Harmony, he denies that events in the physical world have any causal bearing on events in the mental world.

TRANSWORLD IDENTITY

We just suggested that Leibniz solves the problem of free will by suggesting that although our future actions are certain, they are not necessitated. This suggests that although it is certain that I will do x, my doing x is not necessitated. A standard way of expressing this is to say that there is another possible world in which I don't do x. But on Leibniz's view, each different possible world contains entirely different monads. So there seems to be no other possible world in which I exist.

David Lewis has recently proposed a theory that although no other possible world literally contains me, some do contain counterparts of me. (This is called "Counterpart Theory".) On this view, when I say I could do not-x in a case where I will do x, I am really just claiming that a counterpart of me—one that is very similar to me—will do not-x. But this view is not generally accepted. Leibniz is, I think, committed to following Lewis here.

TIME

Earlier I suggested that monads unwind their properties. But this implies that monads exist in time. Yet Leibniz views both space and time as relational. And I do not understand this.