LEIBNIZ (1646-1716)

**Life**
son of a professor of philosophy at Leipzig University
read metaphysics in early youth
familiar with scholastics at early age
offered but refused professorship at 21

in 1676 invented the differential calculus, unaware of Newton’s unpublished discoveries
from 1673 to the end of his life was a courtier of successive electors of Hanover
founded learned societies, first president of the Prussian Academy
made several vain efforts to reunite the Christian churches and to set up a European federation
quarreled with Newton over the ownership of the calculus
died embittered in 1716

**Philosophy**
wrote highly original work on many branches of philosophy
published only a few short treatises
*Discourse on Metaphysics* 1686
*New System of Nature* 1695
*Essays in Theodicy* a vindication of divine justice, response to problem of evil
*The Monadology* 1714
*The Principles of Nature and Grace* 1714 criticism of Locke’s empiricism

kept many of his most powerful ideas out of his published work
much not published until 19th and 20th centuries
thus correct interpretation of his philosophy continues to be controversial
wrote much on logic, metaphysics, ethics, theology

**Logic**
distinguished between truths of reason and truths of fact
truths of reason are necessarily true, cannot be denied without inconsistency
all based on the law of contradiction
truths of fact can be denied without contradiction
they are based on the principle of sufficient reason
—that whatever is the case has a sufficient reason

all necessary truths are analytic
“When a truth is necessary, the reason for it can be found by analysis, that is, by resolving it into simpler ideas and truths until the primary ones are reached”

all contingent propositions, or truths of fact, are synthetic

**Metaphysics**
Leibniz starts with the same technical notion of substance
begins with the same concepts and definitions as Spinoza
but develops a wholly different metaphysical system, a fantastic picture of the universe
Spinoza’s universe is mechanical and wholly dependent upon causes
Leibniz’s system is very much alive
everything happens for a reason (as in Aristotle’s teleology)
Principle of Sufficient Reason
even God cannot act capriciously, but must have a reason for whatever he created
develops from this principle a radical alternative to Newton’s physics
and a spectacularly optimistic view
Leibniz’s system is an attempt to reconcile the mechanistic world-view with the idea of a teleological universe
the mechanistic explanation is a kind of surface explanation
on a deeper level, the universe is purposeful, and the apparently blind, mechanistic causes ultimately originate in divine purpose
things that on the surface give the impression of being material and passive,
in reality are, in essence, forces
the ultimate constituents of reality are atoms
but these atoms are not pieces of matter, but indivisible points of force or energy
whereas Spinoza argues there is only one substance
Leibniz argues that there are infinitely many of these points of energy, which he calls ‘monads’
here Leibniz anticipates the views of contemporary physics, according to which material particles are really a form of energy
Leibniz, however, believed these monads to be entirely nonphysical
often referred to them as “souls”
though he distinguished them from souls in the ordinary sense
every monad is different from every other, and God
God is a sort of supermonad, the only uncreated monad who created all others
every soul is thus a world apart, independent of everything except God
a ‘monad’ is a simple substance, without parts
in the *Monadology* argues for the existence of monads:
whatever is complex is made of what is simple
what is simple is unextended, for whatever is extended can be divisible
monads can have neither parts, nor extension, nor divisibility
whatever is material is extended
thus monads must be immaterial, soul-like entities
whereas with Spinoza there is only one substance
for Leibniz there are infinitely many substances, with the properties only of mind
in the first three propositions Leibniz’s answers to basic ontological questions
1) how many substances are there? Many. Leibniz is thus a pluralist.
2) what kind of substances are there? Simple and immaterial. Leibniz is thus an *immaterialist*. Leibniz’s “atoms” are immaterial
next three propositions Leibniz’s answers cosmological questions
1) are these substances eternal or do they come into existence at some time? Created
2) how do they come into being? By God all at once
3) are they destructible? By God all at once
Spinoza had argued that the one substance can be neither created nor destroyed
it had no beginning or end
Leibniz’s substances, or monads, can be created or destroyed, but not by any natural means; they can be created or destroyed only all at once. Compounds of monads—material objects—can be created and destroyed “naturally” because monads have no parts they cannot grow or decay. They can begin only by creation, end only by annihilation.

How can we distinguish different substances or monads? Only God can know everything about every monad in order to compare and contrast them leads to one of his most controversial principles, “Principle of the Identity of Indiscernibles.” No two monads can have the same properties because God would have no good reason for duplicating any monad. No two monads can be exactly alike.

How do simple monads combine with others to form the changing and familiar universe of our experience? How, thus, do substances interact? Different substances, by definition, are independent and cannot thus have anything to do with one another. Descartes had a huge problem trying to show how his two substances interact. Spinoza dissolved this problem by holding that there is only one substance. Leibniz is a pluralist, holding that there are many substances. But they cannot interact. They cannot even perceive each other in the normal sense. No other creature can thus causally affect a monad. Monads have no windows by which anything could come in or go out. Thus, Leibniz cannot have his monads simply combine to form new compounds. They can change, they change constantly, but only from within (how can there be a within?)? They have no physical properties to alter, so their changes must be changes of mental states.

Leibniz’s system is a kind of animism, a vehemently anti-Newtonian worldview. A monad is as different as possible from a Newtonian material atom. A monad is alive and its changes come from within. A monad is a living being, programmed by God at creation to develop in the way that it does.

The life of a monad is a series of perceptions. Leibniz argues that what we are really describing when we talk about a squirrel climbing a particular tree at a particular moment in time is ourselves. The perception of the squirrel is a permanent part of one unchanging monad—our perception as a whole. If we are watching a squirrel climbing around a tree, Leibniz’s view is that the reality of the squirrel climbing around the tree is actually our perception of this.

Reality is composed of the totality of all monads, each perceiving from its own perspective. The “pre-established harmony” guarantees that all of these views from all of these perspectives are in agreement, so that our view of the squirrel is marked by the squirrel’s view of us.

The apparent differences between parts of a monad are really changes in perception. What is ultimately real is the perceiving monad.
perceptions change, within each monad, to create the appearance of a moving and changing material world
for Leibniz, Newton’s more materialist view of the universe cannot account for experience (perception),
or, in other words, the immaterial aspects of the universe

does not perception involve causation?
When I see a rose, is not my vision caused by the rose?
According to Leibniz it is not
a monad mirrors the world
not because it is affected by the world, but because God has programmed it to change in synchrony with
the world
God is the clockmaker who pre-established the harmony of the universe so that all clocks (monads) keep
the same time

all monads have perception of a rudimentary kind
they have an internal state which is a representation of all the other items in the universe
this inner state changes as the environment changes, not because of the environmental change
but because of its own internal drive

There is a world of created beings—living things, animals, entelechies and souls—in the least part of
matter. Each portion of matter may be conceived as a garden full of plants, and as a pond full of fish.
But every branch of each plant, every member of each animal, and every drop of their liquid parts is
itself likewise a similar garden or pond.

Nowadays we are familiar with the human body as an assemblage of cells, each living an individual life
the monads in Leibniz’s system are like the cells of a human body
each having an individual life history, but unlike cells in being immaterial and immortal
each monad represents the universe
within the human being the dominant monad is the rational soul

**Leibniz vs Newton**
Are space and time substances?
Leibniz’s answer is no, and in this respect his view sharply differs from Newton’s physics
are monads “in” space? Not for Leibniz, as they are immaterial
but they are strictly not “in” time either
the monad does not change in time, time is in the monad
time is a relation between experiences of the monad
Newton had argued that the universe was the motion of material atoms in empty space
acting against each other according to the laws of motion, force, gravity that he so elegantly formulated
but Newton’s theories seemed absurd—the idea of action at a distance
that the moon and the earth have gravitational attraction for each other
Leibniz’s conception of windowless monads, each seeming to interact with others, but in fact only
developing within itself, seemed at the time no more absurd than Newton’s view of causality
Leibniz didn’t need causality, he had “pre-established harmony”
Newton had a great deal of trouble reconciling his mechanistic view with traditional theories of God and
Creation, which he continued to hold all his life

most famous disagreement between the two concerns the nature of space and time
Newton’s mechanical theory seemed to presuppose the existence of some permanent container
namely space, in which the material atoms could interact
this container, which could exist apart from its contents is **absolute space**
Leibniz rejected this notion as absurd
he insisted that space is relative, relative to measurements and things that are measured
there is no absolute space, only space relative to the various positions of the monads, or observers

same is true of time
Newton believed in **absolute time**
existing apart from anything happening “in” it
Leibniz rejected this as absurd
space and time are relative to our perceptions

both alternatives from Newton and Leibniz are still alive in contemporary physics

*Freedom, Possibility, and Evil*
does Leibniz’s system leave room for free will?
Human beings, like all agents, finite or infinite, need a reason for acting
that is the principle of sufficient reason

hard to see how he can make room for a special kind of freedom for human beings
in his system no agent of any kind is acted upon from outside
all are completely self-determining
no agent, rational or not, can step outside the life history laid out in the pre-established harmony
it seems the freedom to act upon one’s motives is an illusory freedom

Leibniz responds to this objection by bringing in the relationship between God and the universe
when God created the world, he began by surveying the infinite possibilities
among the possibilities there will be many possible Julius Caesar’s
among these there will be one that crosses the Rubicon
when God decides to give existence to the Rubicon crossing Caesar he is making actual a freely choosing Caesar, hence our actual Caesar crossed the Rubicon freely

but what of God’s own choice to give existence to the actual world we live in
was there a reason for that choice? was it a free choice?
Leibniz’s answer is that God chose freely to make the best of all possible worlds

best possible world is the one with the greatest surplus of good over evil
a world in which there is free will which is sometimes sinfully misused
is better than a world in which there is neither freedom or sin
hence the evil in the world does not provide an argument against God
because God is good, and necessarily good, he chooses the most perfect world
yet he acts freely, for even though he cannot create anything but the best, he need not have created anything at all

compare Leibniz’s view with Descartes
Descartes’ God was totally free
even the laws of logic where the result of his arbitrary fiat
Leibniz maintained that where logic was concerned God had no choice
Leibniz’s optimistic theory memorably mocked by Voltaire in *Candide*
Leibniz’s system marks the highpoint of continental rationalism
his successors developed a dogmatic scholasticism
Kant was educated in this system of thought that was part of Leibniz’ legacy
Kant eventually rejected this as a result of being awoken from dogmatic slumber by Hume

the theological “happy ending” is not an afterthought, but the heart of Leibniz’s philosophy
like Spinoza, his involvement in metaphysics is ultimately a personal concern for religion
and for his own view of himself and his place in the world
revealing to see the vast difference between Spinoza and Leibniz

Spinoza’s view of humanity is extremely anti-individualistic
each individual is wholly submerged in the concept of the one substance

Leibniz pluralism reinforces the view that each individual is a world in himself or herself
his idealism places an emphasis on mind and thought
sharply contrasts with Spinoza’s neutralism that balances mind and matter

Spinoza’s determinism and his view that ultimately we can do nothing but understand is a gloomy view
compared to Leibniz’s confidence that this is the best of all possible worlds
Spinoza’s heretical view of God contrasts with Leibniz’s more traditional view