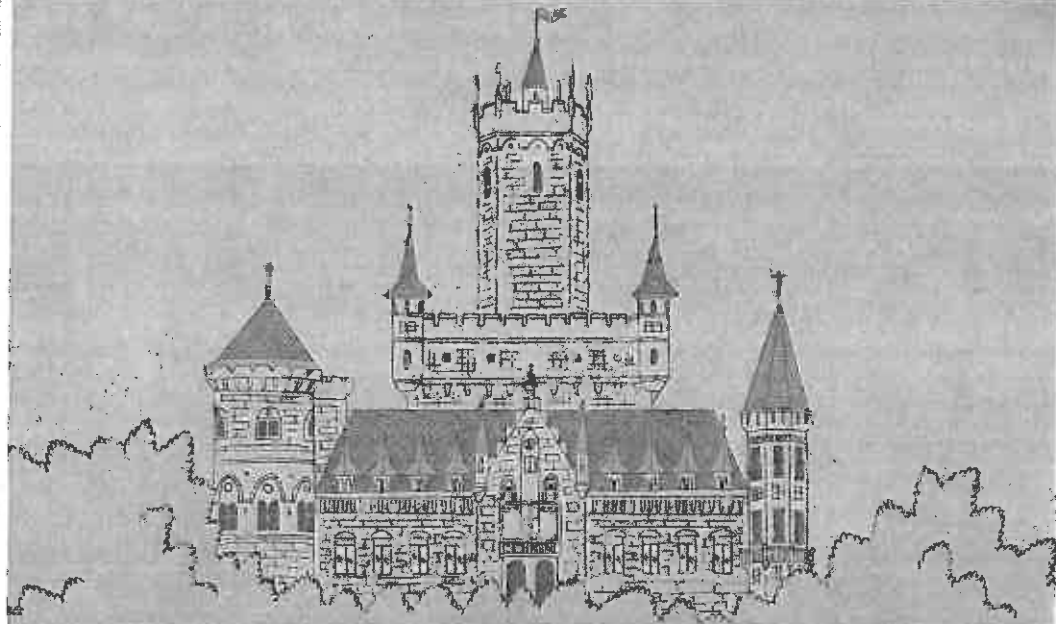


HANOVER



1686

GOTTFRIED WILHELM LEIBNIZ
WAS THE CENTURY'S GREAT
POLYMATH.



LEIBNIZ, A LUTHERAN, AND SPINOZA, AN EXCOMMUNICATED JEW, MUST HAVE HAD QUITE A CONVERSATION



LEIBNIZ KNEW SPINOZA'S VIEWS ON RELIGION, THE BIBLE, AND MIRACLES FROM THE *THEOLOGICAL-POLITICAL TREATISE*.



I'M SHOCKED! SHOCKED, I TELL YOU!!

BUT WHAT LEIBNIZ REALLY WANTED TO KNOW MORE ABOUT WAS SPINOZA'S METAPHYSICS.



TAKE A LOOK AT THE MANUSCRIPT OF MY *ETHICS*.



I MEAN, REALLY?! GOD AND NATURE ARE THE SAME THING?



YOU THINK THAT THINGS COULD NOT HAVE BEEN OTHERWISE?



THIS IS THE ONLY POSSIBLE WORLD?

LEIBNIZ WAS TROUBLED BY SPINOZA'S ACCOUNT OF THE NECESSITY OF THE WORLD AND EVERYTHING IN IT.



PROBABLY BECAUSE HIS OWN PHILOSOPHY SEEMED TO COME DANGEROUSLY CLOSE TO SUCH A CONCLUSION.



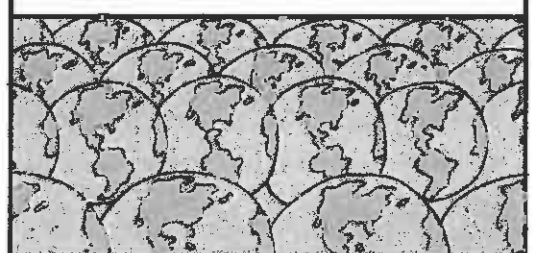
I'D BETTER BE CAREFUL HERE.

BY 1686, LEIBNIZ, NOW WORKING FOR THE DUKE OF HANOVER, HAD FIGURED OUT SOME METAPHYSICAL THINGS OF HIS OWN.

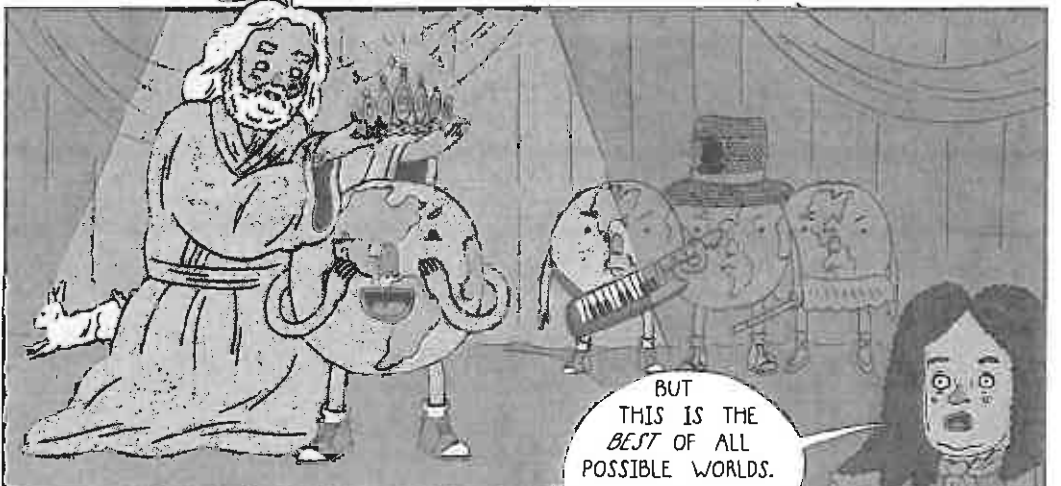


JUST A LITTLE SOMETHING I'VE PUT TOGETHER.

IN HIS *DISCOURSE ON METAPHYSICS*, HE INSISTS THAT THIS IS NOT THE ONLY POSSIBLE WORLD.



THERE ARE INFINITELY MANY POSSIBLE WORLDS THAT GOD COULD HAVE CREATED.



BUT THIS IS THE BEST OF ALL POSSIBLE WORLDS.



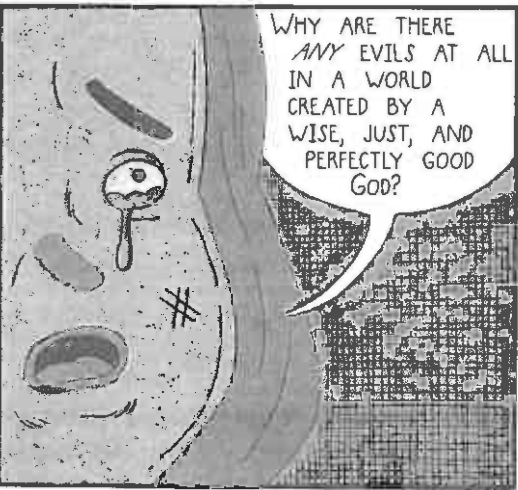
AND WE KNOW THIS BECAUSE OTHERWISE GOD, WHO CANNOT DO ANYTHING LESS THAN THE BEST, WOULD NOT HAVE CREATED IT.



BUT IF THIS IS THE BEST OF ALL POSSIBLE WORLDS, WHY ARE THERE SO MANY BAD THINGS IN IT?



EARTHQUAKES, TSUNAMIS, PLAGUES, MURDERS, BIRTH DEFORMITIES?



WHY ARE THERE ANY EVILS AT ALL IN A WORLD CREATED BY A WISE, JUST, AND PERFECTLY GOOD GOD?



I GOT THIS.



LEIBNIZ COINED THE TERM "THEODICY" FOR A SOLUTION TO THIS PHILOSOPHICAL CONUNDRUM.

YOU'RE LOOKING IN THE WRONG PLACE.



THE BESTNESS OF THE WORLD IS NOT SOMETHING YOU CAN SEE.



WHAT MAKES THIS WORLD THE BEST OF ALL POSSIBLE WORLDS IS THAT IT HAS THE SIMPLEST LAWS AND THE RICHEST PHENOMENA.

BEING THE BEST WORLD OVERALL DOES NOT MEAN THAT IT WILL BE BEST FOR EVERY INDIVIDUAL IN IT.

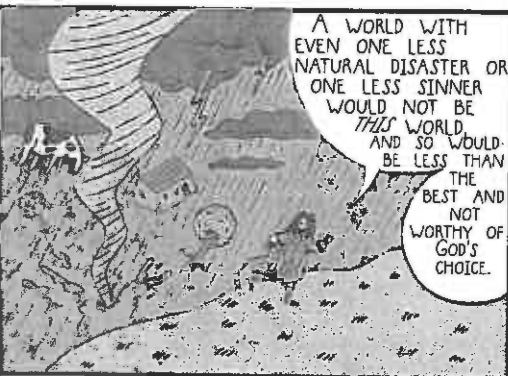


AND IN PAINTING, WHERE SHADOWS ALLOW THE ILLUMINATED PARTS TO EMERGE...

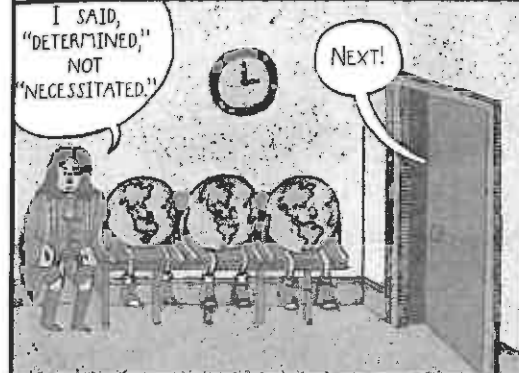
AS IN MUSIC, WHERE DISSONANCE IS NECESSARY TO HIGHLIGHT THE HARMONY...



SO IN THE BEST WORLD THERE WILL BE DEFECTS THAT MAKE THE PERFECTIONS STAND OUT EVEN MORE CLEARLY.



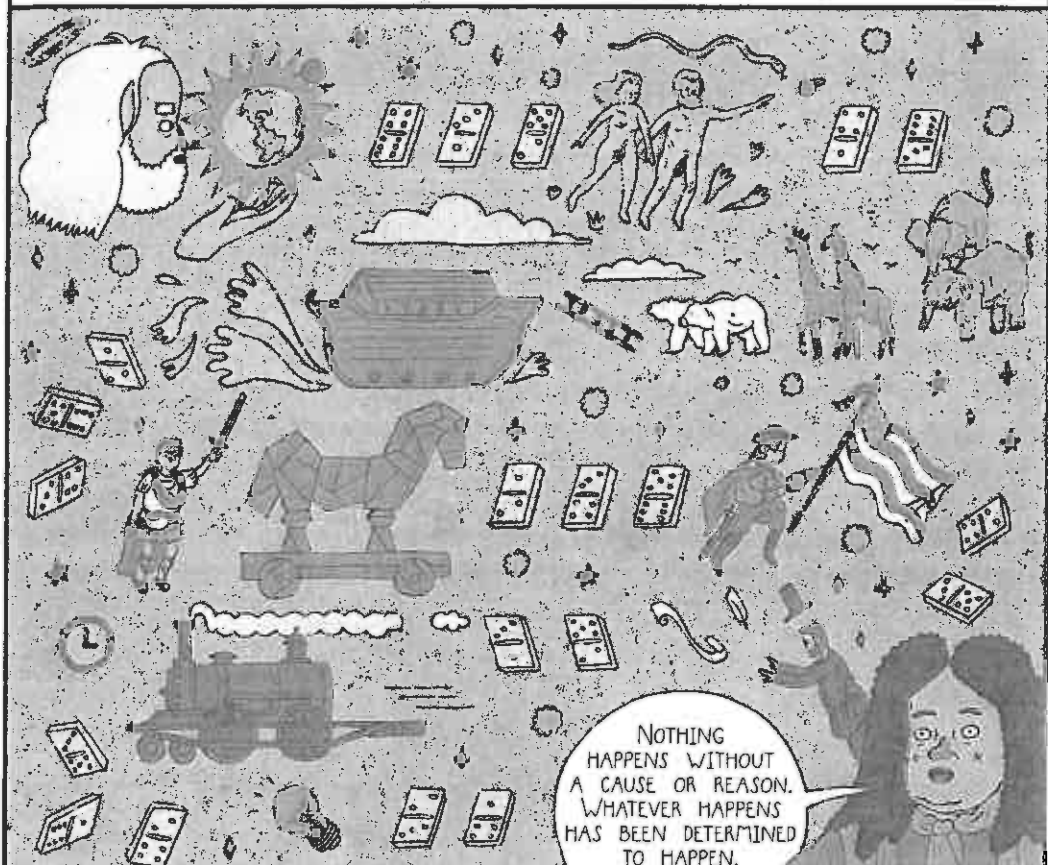
GOD'S CHOICE OF THIS WORLD WAS MOTIVATED, EVEN DETERMINED, BY WISDOM AND JUSTICE.



LEIBNIZ'S GOD MADE A CHOICE FOR A COMPELLING, EVEN IRRESISTIBLE REASON, BUT IT WAS STILL A *FREE* CHOICE.

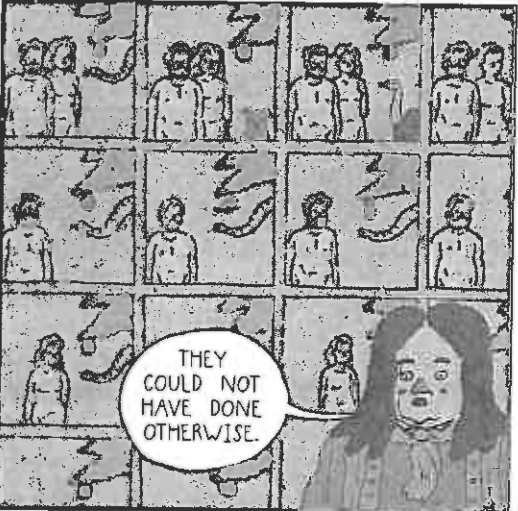
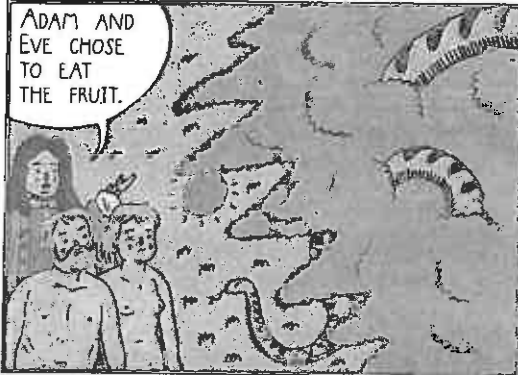


FROM GOD'S CHOICE TO CREATE THIS WORLD, EVERYTHING ELSE - EVERY THING AND EVENT THAT IS A PART OF THIS WORLD - NECESSARILY FOLLOWS.



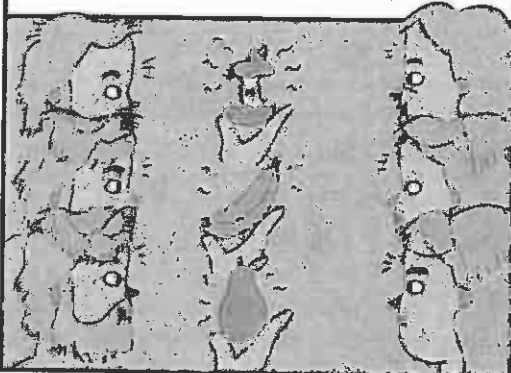
BUT BECAUSE ALTERNATIVE POSSIBILITIES ARE STILL *CONCEIVABLE*, THE NECESSITY OF THINGS IS NOT A LOGICAL OR ABSOLUTE NECESSITY.

ADAM AND EVE CHOSE TO EAT THE FRUIT.



THEY COULD NOT HAVE DONE OTHERWISE.

THIS WORLD WITH *THIS* ADAM AND EVE EATING *THIS* FRUIT IS NOT THE ONLY LOGICALLY POSSIBLE WORLD.

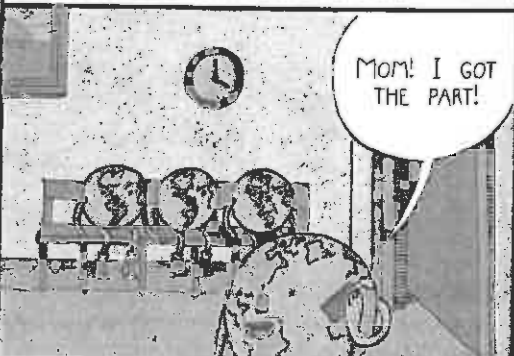


AND GIVEN GOD'S CHOICE OF THIS WORLD WITH THIS ADAM AND THIS EVE,



STILL, THEY CHOSE TO EAT IT FREELY.

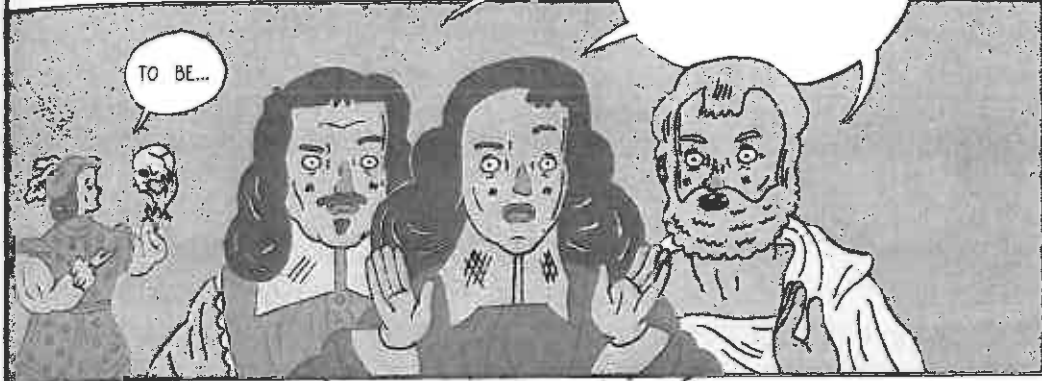
OTHER WORLDS WITH OTHER ADAMS AND OTHER EVES ARE STILL POSSIBLE "IN THEMSELVES," ALTHOUGH GOD WOULD CERTAINLY *NOT* HAVE CHOSEN ANY OF THOSE WORLDS, SINCE THEY ARE NOT COMPATIBLE WITH DIVINE WISDOM.



MOM! I GOT THE PART!

LIKE DESCARTES AND SPINOZA - AND ARISTOTLE - LEIBNIZ MADE *SUBSTANCE* THE METAPHYSICAL FOUNDATION OF REALITY.

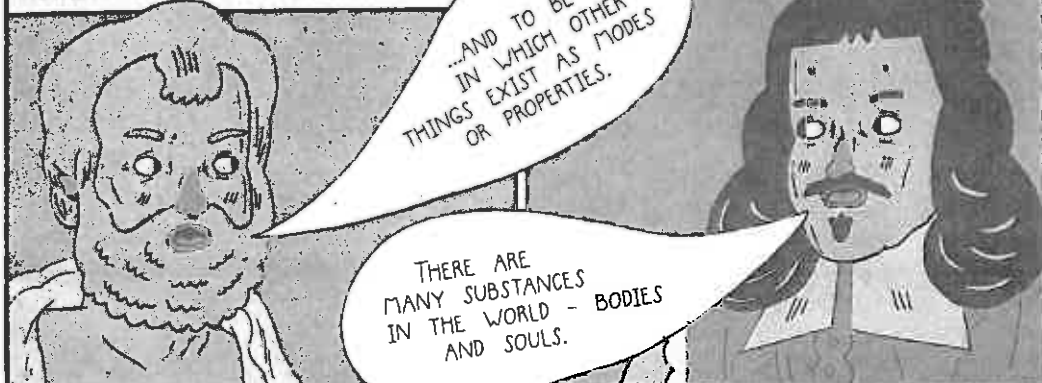
TO REALLY BE - IS TO BE A SUBSTANCE.



TO BE...

AND TO BE A SUBSTANCE IS, ONCE AGAIN, TO BE A TRULY INDEPENDENT THING - SOMETHING THAT REQUIRES NOTHING ELSE FOR ITS EXISTENCE.

...AND TO BE THAT IN WHICH OTHER THINGS EXIST AS MODES OR PROPERTIES.

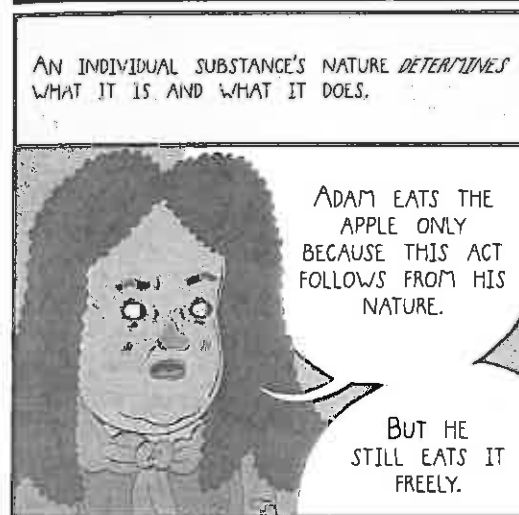
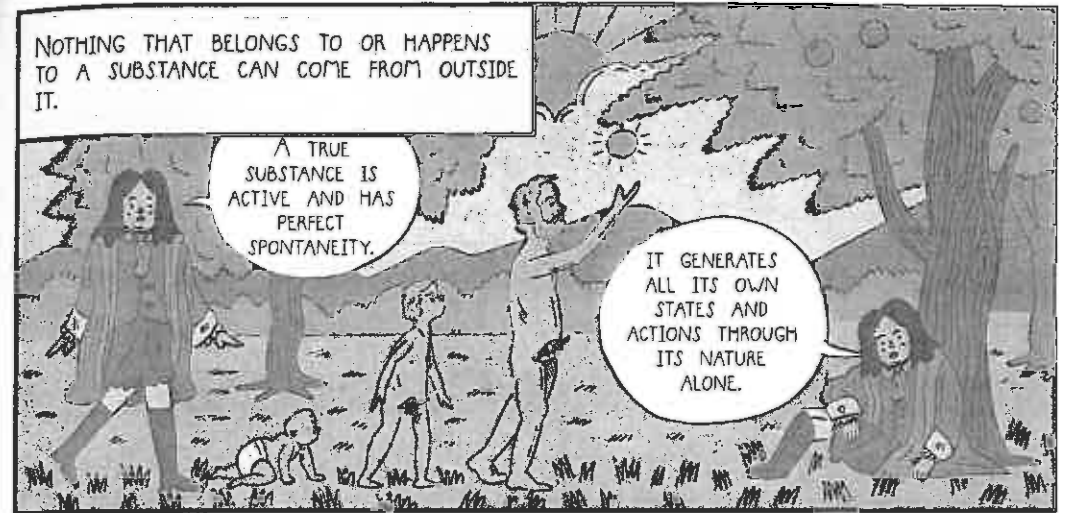
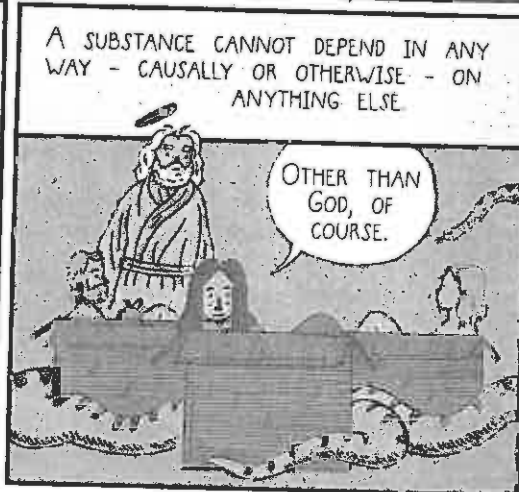
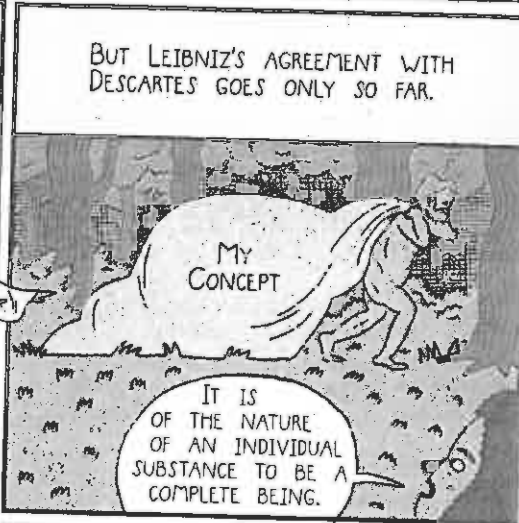


THERE ARE MANY SUBSTANCES IN THE WORLD - BODIES AND SOULS.

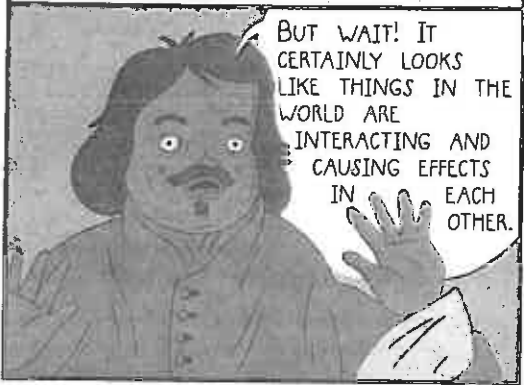
NO STR. THERE IS ONLY ONE SUBSTANCE. ONLY GOD OR NATURE EXISTS IN ITSELF; EVERYTHING ELSE EXISTS IN GOD OR NATURE.



I MUST GO WITH DESCARTES ON THIS ONE. THERE ARE MANY SUBSTANCES - IN FACT, INFINITELY MANY.



LEIBNIZ CONCLUDES THAT IF ANY SUBSTANCE MUST BE THE ACTIVE SOURCE OF ITS OWN STATES, THERE CAN BE NO CAUSAL *INTERACTION* BETWEEN SUBSTANCES.



BUT WAIT! IT CERTAINLY LOOKS LIKE THINGS IN THE WORLD ARE INTERACTING AND CAUSING EFFECTS IN EACH OTHER.

I TELL A FRIEND TO MEET ME AT A CERTAIN PLACE, AND LO AND BEHOLD, THERE HE IS

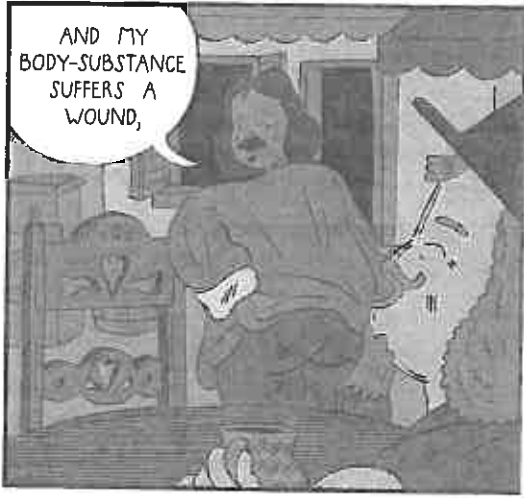
AT THE RIGHT PLACE AT THE RIGHT TIME.



WHEN I SIT ON SOMETHING SHARP -



YOW!



AND MY BODY-SUBSTANCE SUFFERS A WOUND,



MY MIND-SUBSTANCE EXPERIENCES PAIN.



HOW CAN THIS REMARKABLE CORRELATION AMONG THINGS HAPPEN WITHOUT CAUSAL INTERACTION?



BECAUSE THAT'S HOW GOD SET IT ALL UP.

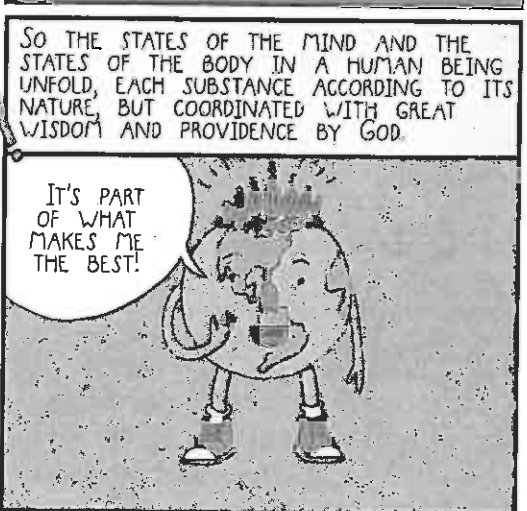
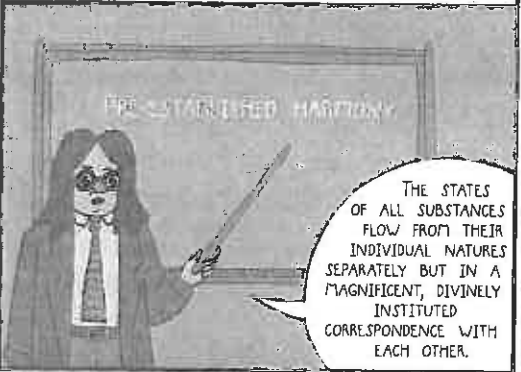


THERE IS A GRAND ORDER IN NATURE DIVINELY ESTABLISHED AT CREATION.

THE WORLD GOD HAS CREATED EXHIBITS A PRE-ESTABLISHED HARMONY AMONG ALL THINGS.



ACCORDING TO LEIBNIZ'S THEORY:



ONE OF LEIBNIZ'S LIFELONG PROJECTS WAS TO USE HIS PHILOSOPHY TO HEAL THE SCHISM BETWEEN CATHOLICS AND PROTESTANTS.



SO HE SENT AN OUTLINE OF THE DISCOURSE ON METAPHYSICS TO ANTOINE ARNAULD, A PROMINENT, BUT HIGHLY CONTROVERSIAL, CATHOLIC THEOLOGIAN WHOM HE GOT TO KNOW IN PARIS

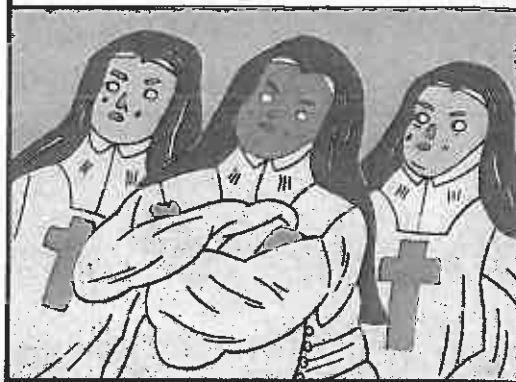
ARNAULD WAS A LEADING FIGURE IN FRANCE OF THE JANSENIST MOVEMENT - A SMALL, AUSTERE CATHOLIC SECT.



THE JANSENISTS WERE PERSECUTED BY THE FRENCH CROWN AND THE CHURCH HIERARCHY FOR THEIR VIEWS ON DIVINE GRACE AND OTHER MATTERS.



BUT THEY RESISTED ANY COMPROMISE OF THEIR PRINCIPLES.



ARNAULD WAS A BRILLIANT BUT STUBBORN MAN, AND NOT ONE TO CONCEDE A MILLIMETER TO HIS MANY ENEMIES.



WE WILL NEVER GIVE IN. GOD IS ON OUR SIDE.

HE WAS ALSO A GIFTED PHILOSOPHER. AS A YOUNG SCHOLAR, HE HAD, LIKE HOBBS, SUBMITTED A SET OF OBJECTIONS TO DESCARTES'S *MEDITATIONS*.



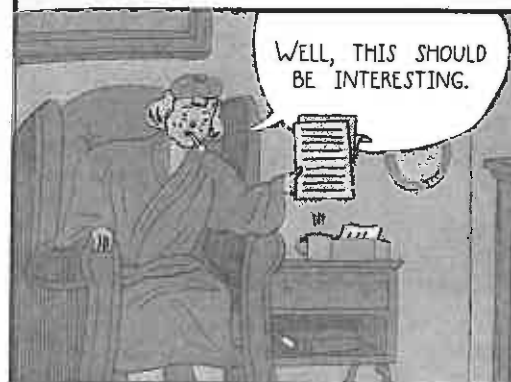
THESE ARE THE BEST OF THEM ALL.

AMONG OTHER THINGS, ARNAULD WONDERED HOW DESCARTES COULD USE HIS INTELLECT TO PROVE GOD'S EXISTENCE AND BENEFICENCE AND THEREBY VALIDATE THE RELIABILITY OF HIS INTELLECT.



IT SEEMS TO ME THAT YOU'RE ARGUING IN A CIRCLE!

ARNAULD WAS IN EXILE FROM FRANCE WHEN HE READ LEIBNIZ'S OUTLINE.



WELL, THIS SHOULD BE INTERESTING.

HE WAS NOT IMPRESSED, TO SAY THE LEAST (ALTHOUGH HE ADMITS HE WAS SICK WHEN HE READ IT)



THESE ARE HORRIFYING IDEAS. (COUGH!) NO CATHOLIC COULD POSSIBLY ACCEPT THEM.

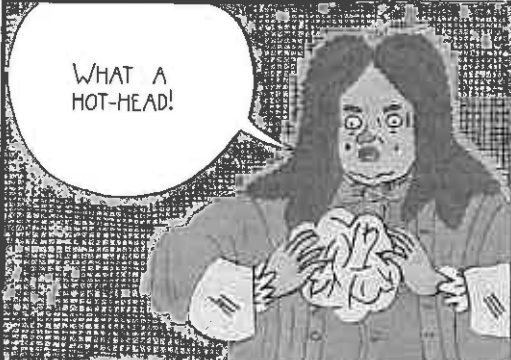


MONSIEUR LEIBNIZ, I SUGGEST YOU GIVE UP DOING METAPHYSICS...



"...AND TURN YOUR ATTENTION TO YOUR OWN SALVATION"?

ARNAULD WAS KNOWN TO BE IRASCIBLE, BUT HIS HARSH AND INSULTING RESPONSE TOOK LEIBNIZ BY SURPRISE.

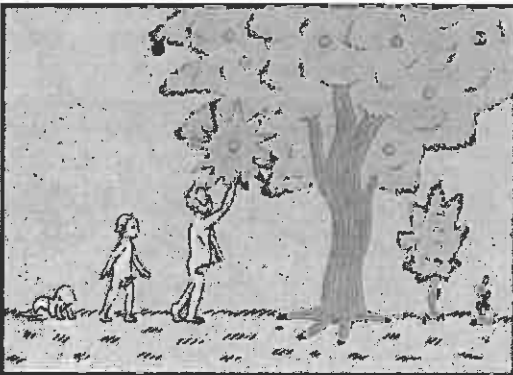


WHAT A HOT-HEAD!

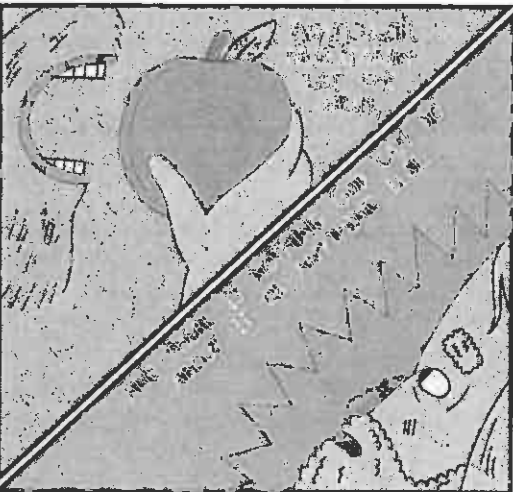
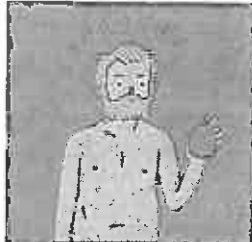


IT'S NO WONDER HE DOESN'T HAVE ANY FRIENDS LEFT.

WHAT ESPECIALLY BOTHERED ARNAULD WERE THE APPARENT CONSEQUENCES OF LEIBNIZ'S VIEWS FOR DIVINE AND HUMAN LIBERTY.



GOD WILL HAVE NO SAY OVER THE COURSE OF HISTORY...



...NOR WILL HUMAN BEINGS HAVE ANY FREEDOM.



LEIBNIZ THOUGHT THAT ARNAULD DID NOT REALLY UNDERSTAND HIS VIEWS.



GOD KNEW EVERY LAST DETAIL OF THE WORLD THAT WOULD BE CREATED,



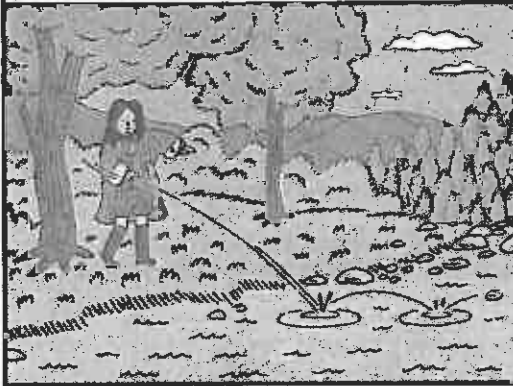
THE PUGNACIOUS ARNAULD WAS NOT PERSUADED.



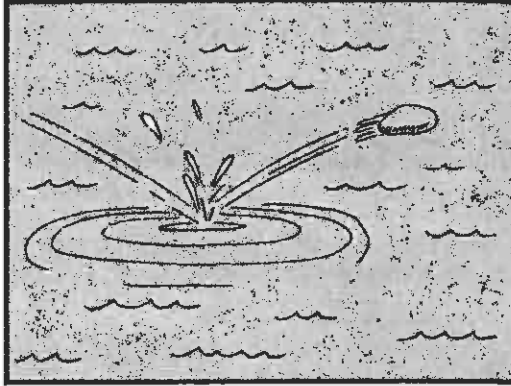
FORTUNATELY FOR LEIBNIZ, ARNAULD, ON THE RUN FROM THE AUTHORITIES, HAD MORE PRESSING MATTERS TO DEAL WITH.



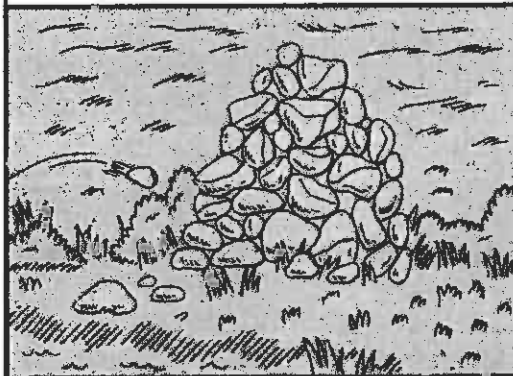
ACTIVITY AND SPONTANEITY WERE NOT THE ONLY DEFINING FEATURES OF SUBSTANCE FOR LEIBNIZ.



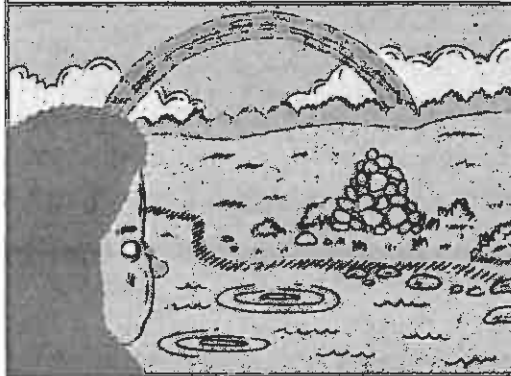
A SUBSTANCE ALSO HAD TO BE A TRUE UNITY.



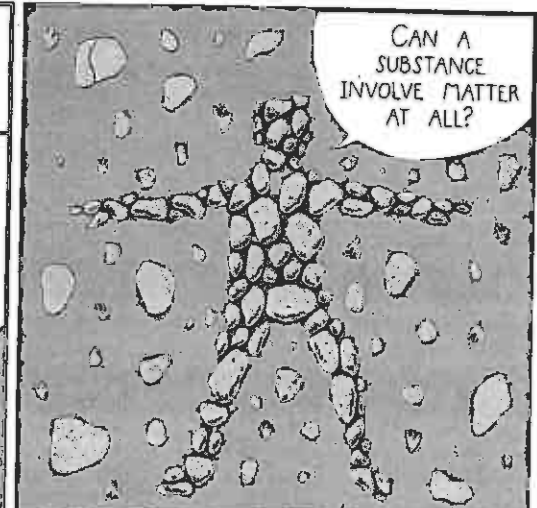
IT HAD TO BE REALLY *ONE* THING AND NOT SIMPLY A COLLECTION OF THINGS (LIKE A PILE OF ROCKS)



OR A "MERE PHENOMENON" (LIKE A RAINBOW)



BUT NOW THERE IS A PROBLEM.



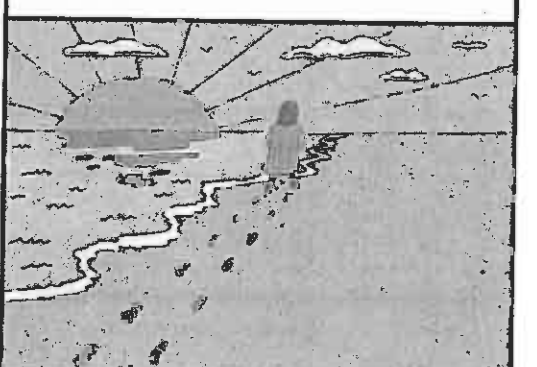
THE PROBLEM IS THAT MATTER IS DIVISIBLE INTO EXTENDED PARTS, AND THOSE EXTENDED PARTS, DIVISIBLE INTO FURTHER EXTENDED PARTS,



WHAT SEEMED TO BE ONE THING - A MATERIAL BODY - TURNS OUT TO BE ONLY AN INFINITELY DIVISIBLE AGGREGATE, AND NOT REAL AT ALL.



THIS QUESTION PUZZLED LEIBNIZ THROUGHOUT HIS PHILOSOPHICAL CAREER.

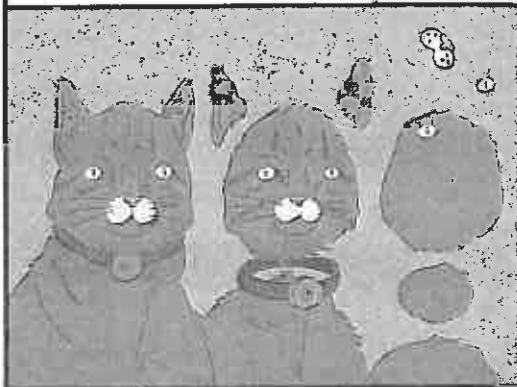


AT FIRST, LEIBNIZ ALLOWED THAT THERE WERE CORPOREAL SUBSTANCES.



THERE'S A DIFFERENCE BETWEEN MY CAT AND A PILE OF ROCKS.

BUT A CORPOREAL *SUBSTANCE* HAS TO BE MORE THAN JUST PASSIVE, DIVISIBLE EXTENSION.

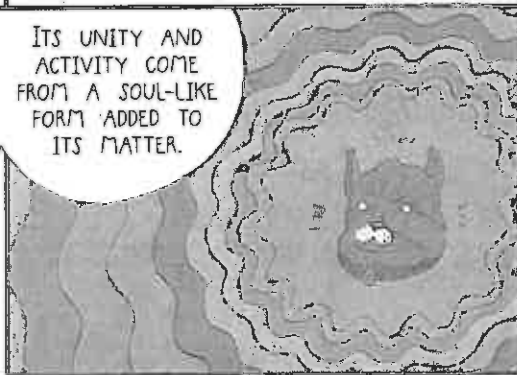


IT REQUIRES SOME UNIFYING AND ANIMATING ELEMENT,



A LIVING CAT IS A SUBSTANCE.

ITS UNITY AND ACTIVITY COME FROM A SOUL-LIKE FORM ADDED TO ITS MATTER.



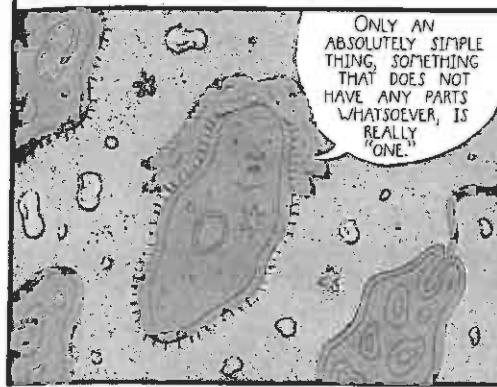
A DEAD CAT IS JUST A BUNCH OF MATTER.



I'LL MISS YOU, MEOW-CHIAVELLI.



LEIBNIZ WAS A RESTLESS THINKER, HOWEVER, AND EVENTUALLY HE REALIZED THAT NOTHING INVOLVING MATTER COULD HAVE REAL UNITY.

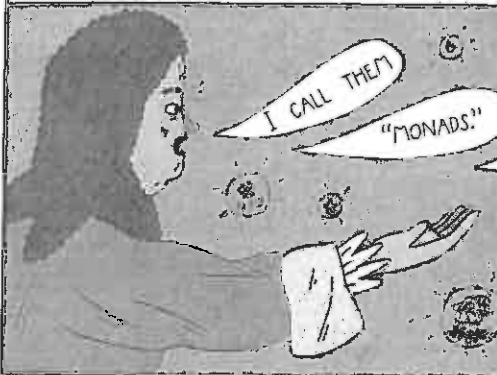


ONLY AN ABSOLUTELY SIMPLE THING, SOMETHING THAT DOES NOT HAVE ANY PARTS WHATSOEVER, IS REALLY "ONE."

AND THE ONLY THINGS THAT ARE ABSOLUTELY SIMPLE AND TRULY INDIVISIBLE ARE SPIRITUAL: MINDS OR SOULS.



LEIBNIZ CONCLUDED THAT THE WORLD, AT ITS MOST FUNDAMENTAL METAPHYSICAL LEVEL, IS CONSTITUTED BY AN INFINITE NUMBER OF IMMATERIAL, SOUL-LIKE SUBSTANCES.



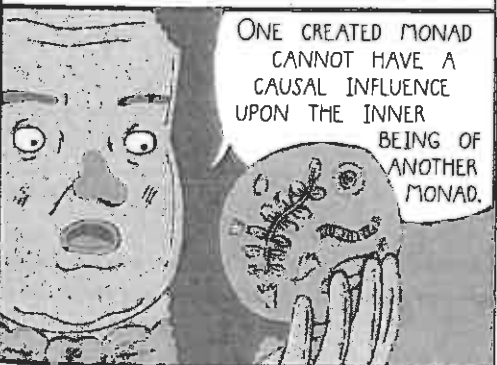
I CALL THEM "MONADS."

THEY ARE SINGULAR

SIMPLE

UNITIES.

AS SUBSTANCE, A MONAD IS THE ACTIVE SOURCE OF ALL ITS OWN STATES AND ACTIVITIES.



ONE CREATED MONAD CANNOT HAVE A CAUSAL INFLUENCE UPON THE INNER BEING OF ANOTHER MONAD.

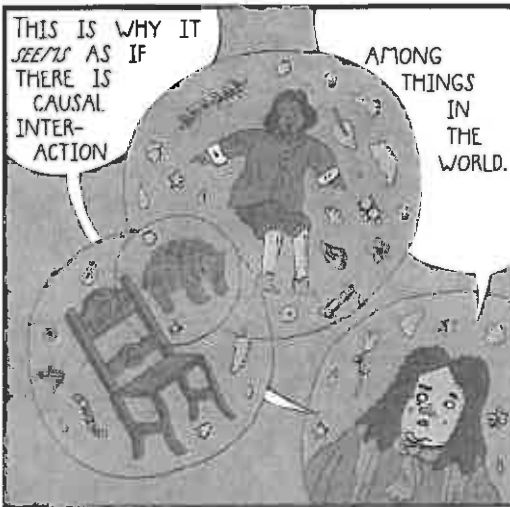
MONADS HAVE NO WINDOWS THROUGH WHICH ANYTHING MAY GO IN OR COME OUT.



BECAUSE MONADS ARE IMMATERIAL, THEY DO NOT OCCUPY SPACE. AND BECAUSE MONADS ARE MIND-LIKE, THEIR INNER STATES ARE "PERCEPTIONS," WITH CHANGES IN THE PERCEPTIONS OF EACH MONAD REFLECTING CHANGES IN THE OTHERS.



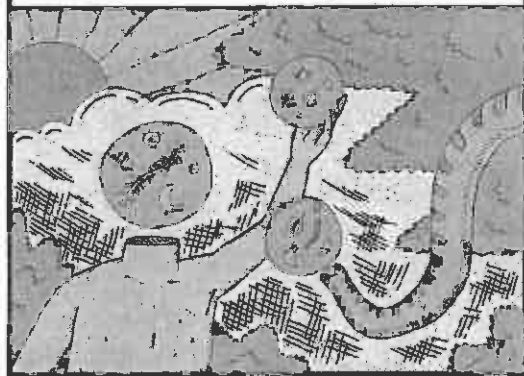
THE PERCEPTIONS OF ALL THE MONADS IN THE WORLD ARE PERFECTLY COORDINATED THROUGH THE PRE-ESTABLISHED HARMONY.



THIS IS WHY IT SEEMS AS IF THERE IS CAUSAL INTER-ACTION

AMONG THINGS IN THE WORLD.

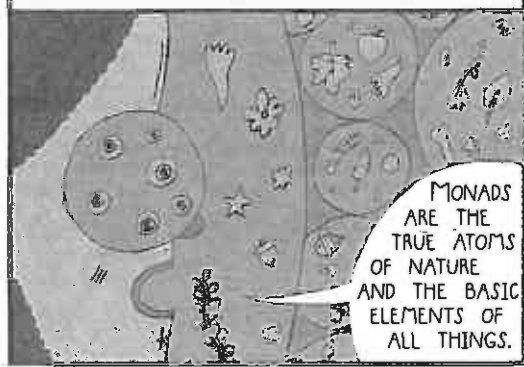
IN LEIBNIZ'S MONADOLGY, EVERY THING IN NATURE IS AGGREGATED OUT OF MONADS.



THESE SPIRITUAL SUBSTANCES ARE WHAT IS REALLY REAL



WHAT APPEARS AS THE MATERIAL WORLD - BODIES IN SPACE - EXISTS ONLY WITHIN THE PERCEPTIONS OF MONADS



MONADS ARE THE TRUE ATOMS OF NATURE AND THE BASIC ELEMENTS OF ALL THINGS.



LEIBNIZ WAS NOT THE ONLY 17TH-CENTURY THINKER TO ADOPT A SPIRITUAL MONISM -

THE VIEW THAT EVERYTHING IN NATURE IS "FULL OF LIFE AND PERCEPTION."

HE MAY HAVE BEEN INFLUENCED BY WHAT HE READ IN A LATIN TRANSLATION OF A BOOK

BY A LEARNED MEMBER OF THE ENGLISH ARISTOCRACY.

skipping many
pages dealing
with Locke...

LOCKE PUBLISHED HIS *ESSAY* - AS WELL AS HIS POLITICAL TREATISES - SOON AFTER HIS RETURN TO ENGLAND.



THE WORK WAS OF GREAT INFLUENCE DURING THE ENLIGHTENMENT, PRIMARILY THROUGH FRENCH TRANSLATIONS.



LEIBNIZ, FOR ONE, WAS IMPRESSED BY WHAT HE READ.



...BUT NOT CONVINCED.



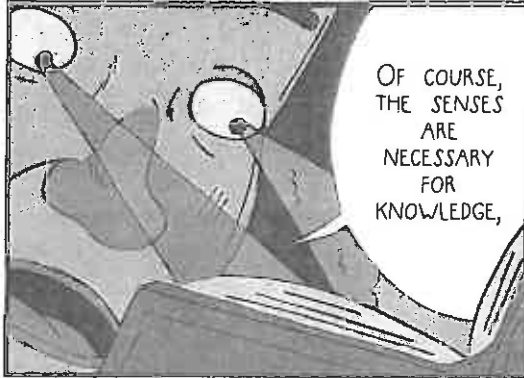
HE DECIDED TO COMPOSE A POINT-BY-POINT COMMENTARY ON THE BOOK.



AHEM!
PART ONE.



LEIBNIZ TOOK PARTICULAR ISSUE WITH LOCKE'S EMPIRICISM.



OF COURSE, THE SENSES ARE NECESSARY FOR KNOWLEDGE,



BUT THEY ARE NOT SUFFICIENT TO PROVIDE IT ALL.

THE PROBLEM IS THAT SENSE EXPERIENCE ACQUAINTS US ONLY WITH SINGULAR INSTANCES OF THINGS AND EVENTS.



I SEE THAT THIS ROSE IS RED,

THAT ROSE IS RED,

THAT OTHER ROSE IS RED...

WHILE THESE PARTICULARS MAY SUPPORT A GENERAL TRUTH...

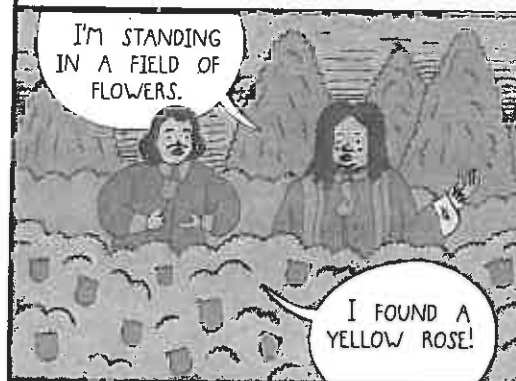


LOOK, THIS ROSE IS YELLOW!

SO, ROSES ARE RED... AS FAR AS I CAN TELL.

...THEY CANNOT ESTABLISH THOSE TRUTHS WITH UNIVERSAL NECESSITY.

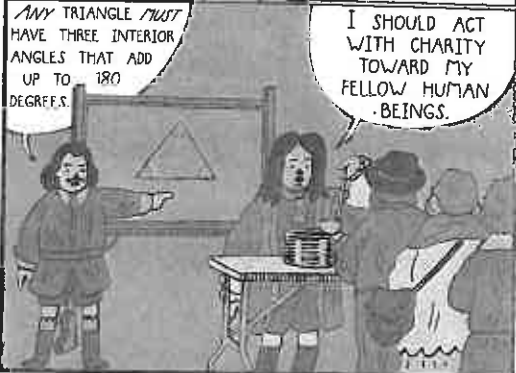
LEIBNIZ INSISTS THAT EXPERIENCE CAN SHOW US WHAT *HAPPENS* TO BE THE CASE AT A PARTICULAR TIME,



I'M STANDING IN A FIELD OF FLOWERS.

I FOUND A YELLOW ROSE!

BUT NOT WHAT *MUST ALWAYS* BE THE CASE OR WHAT *DOUGHT* TO BE THE CASE.



ANY TRIANGLE *MUST* HAVE THREE INTERIOR ANGLES THAT ADD UP TO 180 DEGREES.

I SHOULD ACT WITH CHARITY TOWARD MY FELLOW HUMAN BEINGS.

KNOWLEDGE OF THE NECESSARY TRUTHS OF MATHEMATICS, LOGIC, METAPHYSICS, AND ETHICS CANNOT BE EXPLAINED THROUGH EXPERIENCE.



OUR SENSES COULD NEVER TELL US WHAT JUSTICE IS...



OR THAT ONE SHOULD WORSHIP GOD...

OR EVEN THAT TWO PLUS TWO EQUALS FOUR.



A PROOF OF SUCH THINGS THAT REVEALS THEIR NECESSITY CAN ONLY COME FROM INNATE AND INNER PRINCIPLES.

THUS, LEIBNIZ SAYS, LOCKE'S THEORY FAILS ON ITS OWN TERMS -



THERE ARE CERTAIN THINGS KNOWN BY THE HUMAN MIND THAT CANNOT BE ACCOUNTED FOR BY EXPERIENCE ALONE.



WHY MUST WE ACQUIRE EVERYTHING THROUGH AWARENESS OF OUTER THINGS



AND NOT BE ABLE TO UNEARTH ANYTHING FROM WITHIN OURSELVES?

THIS IS WHAT DISTINGUISHES US FROM THE BEASTS. THEY CAN NEVER FORM NECESSARY PROPOSITIONS.



BUT WE HUMAN BEINGS ARE CAPABLE OF TRUE DEMONSTRATIVE SCIENCE.



HEY, WAIT FOR YOUR OWN CENTURY!

LEIBNIZ BELIEVED THAT LOCKE UNFAIRLY MISCHARACTERIZED THE THEORY OF INNATE IDEAS, SO HE DECIDED TO SET THE ENGLISHMAN STRAIGHT.

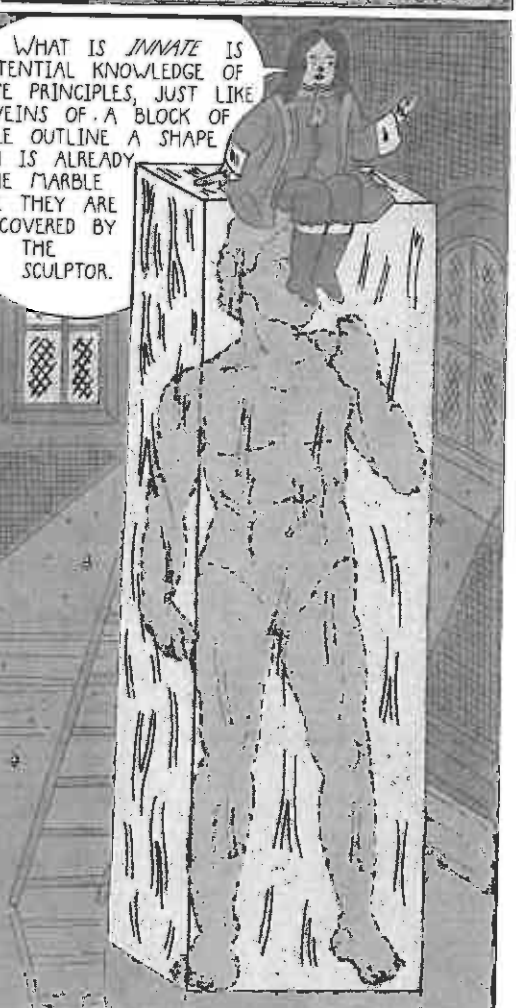
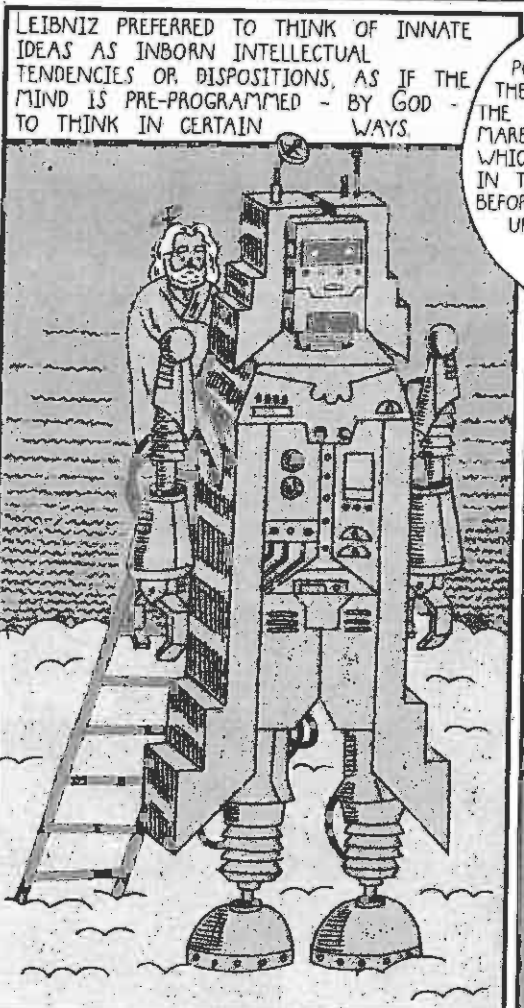


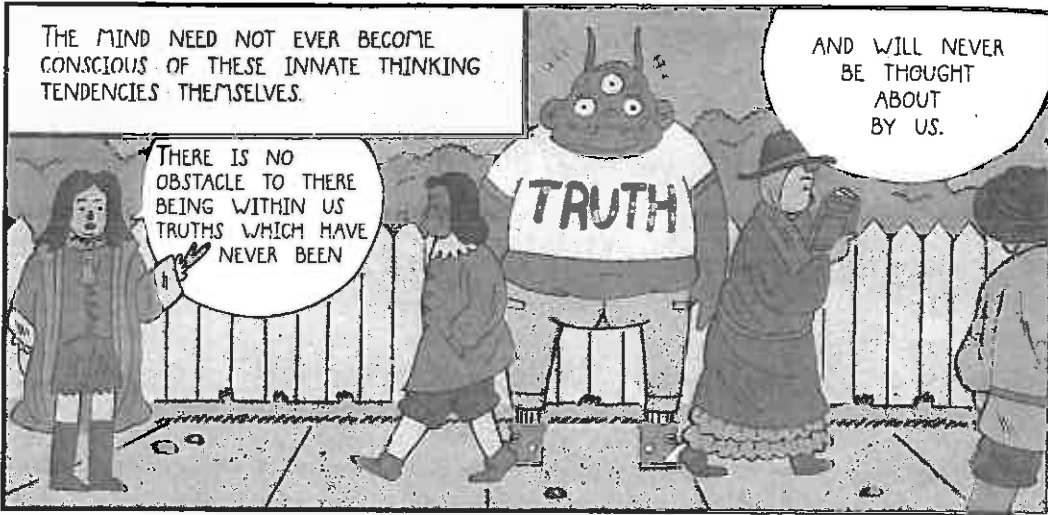
IT'S NOT THAT THERE IS ACTUAL KNOWLEDGE OR FULLY FORMED IDEAS CONSCIOUSLY PRESENT IN THE HUMAN MIND AT BIRTH.



LEIBNIZ PREFERRED TO THINK OF INNATE IDEAS AS INBORN INTELLECTUAL TENDENCIES OR DISPOSITIONS, AS IF THE MIND IS PRE-PROGRAMMED - BY GOD - TO THINK IN CERTAIN WAYS

WHAT IS *INNATE* IS POTENTIAL KNOWLEDGE OF THESE PRINCIPLES, JUST LIKE THE VEINS OF A BLOCK OF MARBLE OUTLINE A SHAPE WHICH IS ALREADY IN THE MARBLE BEFORE THEY ARE UNCOVERED BY THE SCULPTOR.





IN HIS *ESSAY*, LOCKE HAD ALREADY REJECTED THIS NOTION AS ABSURD.



WHEN HE FIRST LEARNED OF LEIBNIZ'S CRITICISMS, HE DISMISSED THEM AND THEIR AUTHOR.



LEIBNIZ WAS NOT SURPRISED BY LOCKE'S INITIAL RESPONSE.



HE WAS PRACTICALLY FINISHED WITH HIS *NEW ESSAYS* IN LATE 1704 WHEN HE HEARD THAT LOCKE HAD DIED. HE DECIDED NOT TO PUBLISH THE WORK AFTER ALL.

