APPENDIX A

Why There Is Something Rather Than Nothing

A child asks why there is a world at all. Any answer you can give names something already in the world. The only answer from outside it would be nothing. And nothing is no answer, because it is not anything. Gottfried Leibniz asked the adult form of that question in 1714.

This appendix answers it, and it proves nothing new. Every claim in it is made and graded in one of the chapters. What it adds is an order: which earlier results answer the question, in which sequence, and what each rests on.

The answer is short. There could not have been nothing: something is necessary. It is secured twice, by two independent routes of different strength. The first rules the alternative out. The second shows that no level and no moment was ever empty.

Two ways of being, and a word for neither

A state of diversity is any state with at least one distinction inside it: one boundary, contrast or non-identity between two items within it. Our universe is the obvious case, and one internal distinction is enough to qualify.

A state of equality is any state with no internal distinction at all: no parts, no regions, no stages in time. Ask what it is like, and there is no answer to give, since it holds no feature for an answer to report.

Together the two definitions sort every state to one side or the other. Has a distinction, or has none. Chapter 3 calls that two-way cut the partition.

Nothing is the claimed third item: no being at all.

Why nothing was never available

The first route takes the word at its strictest. Nothing names non-existence: no state of any kind, and no domain in which a state could sit. If it was never available, the question answers itself.

Could nothing be a third state, beside diversity and equality? The partition says no. “Holds at least one” and “holds none” are contradictories, with no room between them. So nothing as a third state is no possibility that went unrealised. It is a contradiction, and no modal premise is used.

That locates non-existence without removing it. Asked whether it holds a distinction, non-existence answers as equality does. It holds none, since there is no being there to divide. That answer rests on a premise the book marks as contested: a lack confers no internal articulation. So one place has two claimants.

Can non-existence be a second undifferentiated state, standing beside equality? Ask what would tell the two apart. Not a feature, since neither has any. Equality obtains, and non-existence does not. They are two names for one undifferentiated condition, taken according to whether or not it is the case. Chapter 3 calls this the two-names result.

The word then settles its own case. Suppose non-existence obtained: in that very obtaining it would be equality. So it never obtains, and was never a second state.

One objection here is natural. If equality obtains, does it not then have the feature of obtaining? Immanuel Kant's example answers it. A hundred real coins and a hundred imagined ones have the same list of features. What the real coins have is the list being filled. So obtaining marks a difference between states, and never one inside them.

One premise sits under this second case, the vehicle premise: a possibility is a way reality could be. In plain words, for something to have been possible, there must be a candidate state. Chapter 9 names it and states what refusing it costs. The first case needs no such premise.

Why something was always there

A reader who will not grant the vehicle premise should not be left holding the question. So the second route closes it from the other end, borrowing nothing the first used.

It turns on one disjunction about the two hierarchies of reality. There is the chain of grounds, in which every fact rests on others. And there is the order of time, in which every moment follows another. Either the two run on without end, or they terminate.

Suppose they do not terminate. The grounds go down with no floor, and the past runs back with no first moment. Being with distinctions in it obtains at every level and every moment. There is no moment at which nothing obtained.

Suppose instead they terminate. Then the route needs one fact about the bound: it is a state that is. The past runs back to something. A floor with structure in it invites the question again, since each of its features could have been otherwise. That a structured floor owes an answer is the rationalist's premise, which Chapter 4 records a monist rejecting. Either way the route closes, since a structured floor is a state of being too.

Only at equality does the question expire, because there the grounding relation has run out of material. At a structured stopping point the chain stops while the question still applies. So the floor, if there is one, is equality, for anyone who grants that premise.

Time ends the same way. Time is an ordering of distinguishable states, so where there are no distinctions there is nothing to order. The book names the

limit the two hierarchies share the terminus. That the limit is one and not two rests on an assumption Chapter 5 names.

Either way, something is in place. The two branches exhaust the cases, so no branch needs choosing.

How close the traditions came

Both branches end where the traditions had already been. Theology described the origin as timeless, without parts, beyond every predicate. Cosmology described it as without space, time, dimension or internal variation. Chapter 12 shows theology's words moving between two readings. On the privative side, the two descriptions are one description of equality. On the other, the same words name a being rich in determination.

Each tradition then added something the description excludes. On the strand that takes the origin to be strictly without parts, theology gave it a mind, and a mind runs on differences (Chapter 10). Cosmology gave it a state its models could describe, and any physical description describes structure (Chapter 5).

Why the pieces were never put together without contradiction is a question about minds. Four conflations did the blurring. "Without limits" was one phrase for endless diversity and for undivided equality. "Nothing" was one word for undivided being and for non-existence. Asked to picture the undivided or the absent, the mind supplies a dark expanse, which pictures neither. And where nothing was detected, it was concluded that nothing was there.

Only the point about detection does argumentative work. A detector registers differences, so the state with no difference to register is the one state it can never report on. That undifferentiated being is nowhere to be found is what one would expect if it were there. That defeats a standing objection to equality, and defeating an objection establishes no thesis. The proof uses none of this diagnosis.

The objections the appendix answers

Three positions in the literature would keep nothing among the options, each answered at its chapter site. Two of them run as follows.

The primitivist holds that "possibly, nothing exists" is true with no state to carry it, and Chapter 9 states the cost. Characterised, the possibility turns out to be equality. Uncharacterised, the clause is satisfied at no state, and no stated respect then parts it from the open possibility of equality.

The subtraction argument reaches an empty world by removing contingent concrete things one at a time. Chapter 9 follows the removals to where they end, the equalisation of a world. Every stage of that operation keeps the world it subtracts from.

What the appendix claims

The appendix establishes no result of its own, and the Register, the book's table of graded results, gives it no row. It collects rows made in Chapters 3, 4, 5, 8, 9 and 11, each already graded there.

Those results are graded *established*, the rung below the book's top mark, which is *self-vindicating*. *Established* means validly derived from premises the book defends, so a challenger has to reject one of them.

The first route's closure is *established* and not *self-vindicating*. Its second case uses the vehicle premise, and both cases are needed. Chapter 9's row in the Register carries that grade.

Three conditions travel with the results. The two-names result of Chapter 3 uses the premise that a lack confers no internal articulation, which the book marks as contested. Anything argued on the termination branch holds only if the hierarchies do terminate, and whether equality is possible at all stays open. And Chapter 11's result is dialectical: the burden of showing a necessary Being has not been discharged, and the claim itself stands unrefuted.

Six things are left open. The vehicle premise can be refused, and the modal closure falls with it, while the factual closure of the second route stands. The appendix also assumes that equality was available, which Chapter 3 shows to be consistent without proving it. The answer does not rest on that assumption.

One question survives the answer, and it is a different one. Why does being have distinctions in it at all? Chapter 5 splits that question in two. Asking what it was about the featureless state that produced the many is foreclosed, since an answer would cite a feature of a state with none. Asking why the diverse side is populated at all is well formed, and brute: its answer provably cannot exist. What is conceded is one fact without parts.

Appendix B walks the traditions in full, finding equality under three names.