LEIBNIZ'S THEODICY

Introduction to the text¹

Leibniz's Essays of Theodicy on the Goodness of God, the Freedom of Man, and the Origin of Evil appeared anonymously in 1710 when Leibniz was 64 years old (Leibniz 1710). The term 'Theodicee' was Leibniz's invention, from the Greek theos and dike, and some readers—such as Jacques Bernard, who reviewed the book for the Nouvelles de la Republique des Lettres—mistook it for a pseudonym. However, "Par M. Leibniz" was added in the second edition of 1712. Over time Leibniz's neologism caught on, and has come to mean "The, or a, vindication of the divine attributes, esp. justice and holiness, in respect to the existence of evil; a writing, doctrine, or theory intended to justify the ways of God to men" (Oxford English Dictionary). However, it is important to notice the differences between this and Leibniz's original intent. As he made clear in a letter to Des Bosses, for Leibniz, "Theodicy" is simply "the doctrine of the right and justice of God" (GPII428). As we shall see, the book contains almost no attempt to explain why the created world contains particular evils.

Leibniz wrote the Theodicy in French and seems to have wanted it to be accessible. Indeed, he tried to have it translated into English. It is nonetheless a very challenging read due to its complex structure, which includes numerous discussions of debates that now seem rather arcane. And this is compounded by the fact that much of the book engages directly with the writings of Pierre Bayle (1647-1706). Bayle was one of the most prominent philosophers at the turn of the eighteenth century due to his Critical and Historical Dictionary (Bayle 1740). However, his work is relatively unknown today.

According to Leibniz, the Theodicy began with conversations with his patron, Sophie Charlotte, queen of Prussia (1668-1705), concerning the ways in which Leibniz thought that Bayle had made "religion and reason appear as adversaries" (GP VI 39/H 63). During these conversations Leibniz mentioned that he had "sometimes been minded to publish upon this matter some reflections whose chief aim should be knowledge of God such as is needed to stimulate piety and to nourish virtue" (GP VI 39/H 63). And, with encouragement from the queen and "some friends", Leibniz "stitched together" the "numerous scraps" he had written down for Sophie Charlotte or as personal notes to make a single work" (to V on Greiffencrantz, GP VI 12/Antognazza 2009: 421).5

Leibniz was happy with the Theodicy's reception, reporting that it had "pleased theologians of all three main confessions [i.e., Catholic, Lutheran and Reformed]" (to Von Greiffencratz. GP VI 12-13/Antognazza 2009: 483), and it was indeed published in Latin at the behest of the Jesuits. However, things changed as the eighteenth century progressed. David Hume (1711-76) claimed that Leibniz had made "essential" to his philosophy the "bold and paradoxical position" of the denial of "the sense of human misery" (Hume 1998: 174-5). And Leibniz was identified with Dr Pangloss from Voltaire's Candide, whose claim that this is the best of all possible worlds is famously ridiculed. By 1791, Kant was doing little more than expressing a commonplace when he titled his famous essay "On the Failure of All Philosophical Attempts at Theodicy". The twentieth century saw a burgeoning interest in the study of Leibniz's work. But in the English-speaking world the Theodicy was largely eclipsed by interest in his philosophy of logic and language and metaphysics. However, there has been a renewal of interest in Leibniz's philosophical theology recently, and this intensified during the 300th anniversary of the Theodicy in 2010.

¹ This introduction by David Lodge is taken from: Paul Lodge, "The Theodicy" In: *Leibniz's Key Philosophical Writings: A Guide.* Edited by: Paul Lodge and Lloyd Strickland, Oxford University Press 2020

The Pyramid of Possible Worlds

Theodicy, $\S 405-417$ (in a revised translation)²

[This selection contains the final pages of Leibniz's Theodicy, it consists of a rewritten version of a selection from Laurentius Valla's Dialogue on Free Will. In this Dialogue, Laurentius Valla criticizes Boethius' famous Consolation of Philosophy and concludes that the debate on free will cannot be solved within philosophy (personified as a woman in Boethius), but has to refer back to the authority of the Bible. Leibniz focuses on a 'little fable' presented by Valla in which he reflects on the free will of the notorious rapist Sextus Tarquinius Superbus, the son of Lucius Tarquinius Superbus, the last king of Rome. Leibniz then extends this 'little fable' and introduces two new characters: Theodorus (playing a similar role as Boethius did in the Consolation of Philosophy) and Pallas Athena (playing a similar role as the women personifying philosophy did in Boethius' book). This extension of the little fable is developed in a series of nested stories which culminate in the fiction of the pyramid of all possible worlds.]

After having met (as it seems to me) all the objections on this subject that I could find in Monsieur Bayle's works, I intended to finish here. But remembering Laurentius Valla's *Dialogue on Free Will*, directed against Boethius, which I have already mentioned, I thought it would be opportune to quote it in abstract, retaining the dialogue form, and then to continue from where it ends, keeping up the fiction it initiated; and that less with the purpose of enlivening the subject, than in order to explain myself towards the end of my treatise as clearly as I can, and in a way most likely to be generally understood. Valla's *Dialogue on Free Will* as well as his books *On pleasure* [De Voluptate] and Of true and false good [De vero falsoque bono] make it plain that he was no less a philosopher than a humanist. The latter two books were opposed to the first four books of Boethius' Consolation of Philosophy, and the Dialogue on Free Will to the fifth book.³ A certain Spaniard named Antonio Glarea ask him for clarification on the difficulty of free will—much less known than it deserves to be—on which depend justice and injustice, punishment and reward in this life and in the next. Laurentius Valla answers him that we must reconcile ourselves with an ignorance we share with the rest of the world, just as one reconciles oneself with not having the wings of birds.

[The dialogue between Laurentius Valla and Antonio Glarea; in Leibniz's condensed version of it]

ANTONIO: I know that you can give me those wings, like another Daedalus, so that I may emerge from the prison of ignorance, and rise to the region of truth, which is the homeland of souls. The books that I have seen did not satisfy me, not even the famous Boethius, who meets with general approval. I don't know whether he himself fully grasped what he said about God's understanding, and of an eternity superior to time. And I would like to hear your thoughts on reconciling **foreknowledge with freedom.**

LAURENTIUS: I fear that by refuting this great man, I will offend many people; yet, I can live with this fear to respect the request of a friend, provided that you make me a promise...

ANTONIO: What?

LAURENTIUS: It is that, after providing you with lunch, you will not ask me to give you dinner. That is to say, I want you to be satisfied with my answer to your question, without posing a new one.

² Original translation by E. M. Huggard, (from C. J. Gerhardt's Edition of the Collected Philosophical Works, 1875-90), revised by M. Boven.

³ Valla: "As time will be given to criticism of others elsewhere, in this present work we have wished to show that Boethius (for no other reason than that he loved philosophy excessively) argued incorrectly about free will in the fifth book of his Consolation of Philosophy."

ANTONIO: I promise you. Here is the heart of the difficulty. If God foresaw the treason of Judas, his betrayal [of Jesus] would become a necessary act, it would be impossible for him not to betray [Jesus]. There is no obligation to do the impossible. Then Judas would not actually sin; he would not deserve to be punished. This destroys justice and religion, along with the fear of God. 5

LAURENTIUS: God foresaw sin; but he did not compel man to commit it; sin is the result of free will.

ANTONIO: This will would be necessary, since it was foreseen.

LAURENTIUS: If my knowledge does not cause things past or present to exist, neither will my foreknowledge cause future things to exist.

ANTONIO: That comparison is deceptive: neither the present nor the past can be changed, they are already necessary; but the future, movable in itself, **becomes fixed and necessary through foreknowledge**. Let us pretend that a god of the heathen boasts of knowing the future: I will ask him if he knows which foot I shall put in front, then I will do the opposite of **what he foretells** [*prédit*].

LAURENTIUS: This God knows what you are about to do.

ANTONIO: How does he know it, since I will do the opposite of what he shall have said, and I suppose that he will say what he thinks?

LAURENTIUS: Your supposition is false: God will not answer you; or again, if he were to answer you, the veneration you would have for him would make you hasten to do what he had said; his prediction would be to you an order. But we have changed the question. We are not concerned with what God will foretell [prédira] but with what he foresees [prévoit]. Let us therefore return to foreknowledge, and distinguish between the necessary [le necessaire] and the certain [le certain]. It is not impossible that what is foreseen [prévu] does not take place; but it is inevitable that it will take place. I can become a Soldier or a Priest, but I will not become one.

ANTONIO: This is where I got you. The rule of the philosophers states that whatever is possible can be considered as existent. But if what you say is possible – that a different event than the one foreseen could actually take place – then God would have been wrong.

[Laurentius Valla's fable: Sextus Tarquinius visits the oracle of Apollo in Delphi]⁶

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⁴ Judas betrayed Jesus as recounted in Matthew 26: 14-16."Then one of the Twelve [disciples]—the one called Judas Iscariot—went to the chief priests and asked, What are you willing to give me if I deliver him [Jesus] over to you?' So they counted out for him thirty pieces of silver. From then on Judas watched for an opportunity to hand him over." ⁵ To give you a sense of the way in which Leibniz has condensed the various arguments in this dialogue, I will quote the original dialogue in which Valla presents the same argument (in the words of Antonio): "If God foresees the future, it cannot happen otherwise than He foresaw. For example, if He sees that Judas will be a traitor, it is impossible for him not to become a traitor, that is, it is necessary for Judas to betray, unless—which should be far from us—we assume God to lack providence. Since He has providence, one must undoubtedly believe that mankind does not have free will in its own power; and I do not speak particularly of evil men, for as it is necessary for these to do evil, so conversely it is necessary for the good to do good, provided those are still to be called good or evil who lack will or that their actions are to be considered right or wrong which are necessary and forced. And what now follows you yourself see: for God either to praise this one for justice or accuse that of injustice and to reward the one and punish the other, to speak freely, seems to be the opposite of justice, since the actions of men follow by necessity the foreknowledge of God."

⁶ The story of Sextus Tarquinius is told by Livy in his *History of Rome*, LVII. One day when the young men were drinking at the house of Sextus Tarquinius, after a supper where they had dined with the son of Egerius, Conlatinus, they fell to talking about their wives, and each man fell to praising his wife to excess. Finally Conlatinus declared that there was no need to argue; they might all be sure that no one was more worthy than his Lucretia. "Young and vigorous as we are, why don't we go get out horses and go and see for ourselves what our wives are doing? And we will base our judgement on whatever we see them doing when their husbands arrive unannounced." Encouraged by the wine, "Yes, let's go!" they all cried, and they went on horseback to the city. Darkness was beginning to fall when they arrived and they went to the house of Conlatinus. There, they found Lucretia behaving quite differently from the daughtersin-law of the King, whom they had found with their friends before a grand feast, preparing to have a night of fun.

LAURENTIUS: The rules of the philosophers are not oracles for me. This one in particular is not accurate. Often two contradictory things are both possible, does this mean that they can also both exist? But, to clarify this a bit more, let us pretend that Sextus Tarquinius, coming to Delphi to consult the Oracle of Apollo, receives the following answer:

Exul inopsque cades irata pulsus ab urbe Poor and banished from your homeland, we will see you lose your life.

The young man [Sextus Tarquinius] will complain: I have brought you a royal gift, O Apollo, and you announce such an unhappy fate for me? Apollo will say to him: Your gift is pleasing to me, and I do what you asked of me, I tell you what will take place. I know the future, but I do not bring it about. Go make your complaint to Jupiter and the fates. Sextus would look ridiculous if he kept complaining about Apollo after that. Would he not?

ANTONIO: He will say: I thank you, O holy Apollo, for not keeping silent, for revealing the Truth to me. But how can Jupiter be so cruel to me, preparing such a hard fate for an innocent man, a devout worshiper of the gods?

LAURENTIUS: You, Apollo will say, are you innocent? Know that you will be arrogant, that you will commit adulteries, that you will be a traitor to your country. Would Sextus be able to reply: you are the cause, O Apollo; you force me to do it, by foreseeing it?

ANTONIO: I admit that he would have lost his senses if he made this reply.

Lucretia, even though it was night, was still working on her spinning, with her servants, in the middle of her house. They were all impressed by Lucretia's chaste honor. When her husband and the Tarquins arrived, she received them, and her husband, the winner, was obliged to invite the king's sons in. It was then that Sextus Tarquinius was seized by the desire to violate Lucretia's chastity, seduced both by her beauty and by her exemplary virtue. Finally, after a night of youthful games, they returned to the camp.

LVIII. Several days passed. Sextus Tarquinius returned to the house of Conlatinus, with one of his companions. He was well received and given the hospitality of the house, and maddened with love, he waited until he was sure everyone else was asleep. Then he took up his sword and went to Lucretia's bedroom, and placing his sword against her left breast, he said, "Quiet, Lucretia; I am Sextus Tarquinius, and I have a sword in my hand. If you speak, you will die." Awakening from sleep, the poor woman realized that she was without help and very close to death. Sextus Tarquinius declared his love for her, begging and threatening her alternately, and attacked her soul in every way. Finally, before her steadfastness, which was not affected by the fear of death even after his intimidation, he added another menace. "When I have killed you, I will put next to you the body of a nude servant, and everyone will say that you were killed during a dishonorable act of adultery." With this menace, Sextus Tarquinius triumphed over her virtue, and when he had raped her he left, having taken away her honor. Lucretia, overcome with sorrow and shame, sent messengers both to her husband at Ardea and her father at Rome, asking them each to come "at once, with a good friend, because a very terrible thing had happened." Spurius Lucretius, her father, came with Publius Valerius, the son of Volesus, and Conlatinus came with Lucius Junius Brutus; they had just returned to Rome when they met Lucretia's messenger. They found Lucretia in her chamber, overpowered by grief. When she saw them she began to cry. "How are you?" her husband asked. "Very bad," she replied, "how can anothing go well for a woman who has lost her honor? There are the marks of another man in your bed, Conlatinus. My body is greatly soiled, though my heart is still pure, as my death will prove. But give me your right hand in faith that you will not allow the guilty to escape. It was Sextus Tarquinius who returned our hospitality with enmity last night. With his sword in his hand, he came to take his pleasure for my unhappiness, but it will also be his sorrow if you are real men." They promised her that they would pursue him, and they tried to appease her sorrow, saying that it was the soul that did wrong, and not the body, and because she had no bad intention, she did no wrong. "It is your responsibility to see that he gets what he deserves," she said, "I will absolve myself of blame, and I will not free myself from punishment. No woman shall use Lucretia as her example in dishonor." Then she took up a knife which she had hidden beneath her robe, and plunged it into her heart, collapsing from her wound; she died there amid the cries of her husband and father.

LIX. Brutus, leaving them in their grief, took the knife from Lucretia's wound, and holding it all covered with blood up in the aid, cried, "By this blood, which was so pure before the crime of the prince, I swear before you, O gods, to chase the King Lucius Tarquinius Superbus, with his criminal wife and all their offspring, by fire, iron, and all the methods I have at my disposal, and never to tolerate Kings in Rome evermore, whether of that family of any other." Source: Translated from the original in Jean Bayet, ed., Tite-Live: Histoire Romaine, Tome I, livre I. Paris: Societé d'Édition "les belles-lettres," 1954, pp. 92-95. https://sourcebooks.fordham.edu/ancient/livy-rape.asp

⁷ The female personifications of destiny.

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LAURENTIUS: Therefore, the traitor Judas cannot complain about God's foreknowledge either. And there is the answer to your question.

ANTONIO: You have satisfied me beyond my hopes, you have done what Boethius was not able to do: I will be obliged to you my entire life.

LAURENTIUS: Let us carry our fable a little further. Sextus will say: No, Apollo, I will not do what you say.

ANTONIO: What! the God will say, am I a liar? I repeat to you once more, you will do all that I have just said.

LAURENTIUS: Perhaps Sextus would pray the gods to alter his fate, to give him a better heart, ANTONIO: He would receive the answer:

Desine fata Deum flecti sperare precando. [Stop hoping the gods will bend your fate by praying]⁸

He cannot cause divine foreknowledge to lie. But how will Sextus respond? Will he not complain to the gods? Will he not say: What? Am I not free? Is it not in my power to follow virtue?

LAURENTIUS: Apollo might now say to him: know, my poor Sextus, that the gods make everyone as they are. Jupiter made the wolf ferocious, the hare timid, the ass stupid, and the lion courageous. He gave you a soul that is wicked and incorrigible; you will act in conformity with your natural disposition, and Jupiter will treat you as your actions deserve; he has sworn it by the Styx.

ANTONIO: I confess to you, it seems to me that Apollo in excusing himself, accuses Jupiter more than he accuses Sextus. And Sextus could answer him: Jupiter therefore condemns in me his own crime; it is he who is the only guilty one. He can do whatever he wants to me: but, made as I am, I must act as he has willed. Why is he punishing me? Could I resist his will?

LAURENTIUS: I confess that I am brought to a pause here as you are. I put the gods on the scene, Apollo and Jupiter, to make you distinguish between divine foreknowledge [prescience] and providence [providence]. I have shown that Apollo, who has foreknowledge, does not impair freedom; but I cannot satisfy you on the decrees of Jupiter's will, that is to say, on the orders of providence.

ANTONIO: You have dragged me out of one abyss, and you plunge me back into another, greater abyss.

LAURENTIUS: Remember our contract: I have given you lunch, and now you ask me to give you dinner too.

ANTONIO: I see the trick you have pulled: you have caught me; this is not an honest contract.

LAURENTIUS: What would you have me do? I have given you wine and meats of my own, as much as my small estate can provide; for nectar and ambrosia, you will have to ask the Gods, that divine nourishment is not found among men. Let us listen to St. Paul, that chosen vessel who was lifted up to the third heaven, where he received inexpressible words: he will answer you with the comparison of the potter, with the incomprehensibility of the ways of God, and with the admiration for the depth of his wisdom. However, it is good to observe that we do not ask why God foresees the thing, for that is understood, it is because it will be; but we ask why he ordains one thing rather than another, why he hardens some and has compassion for others. We do not know the reasons he may have, but his benevolence and his wisdom are enough to make us judge that they are good. As since he is just, it follows that his decisions and his actions do not destroy our freedom.

Some have looked for reason in all that. They have said that we are made from a corrupt and impure mass, indeed of mud. But Adam and the Angels were made of silver and gold,

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⁸ Virgil, *Aeneid*, VI, 376. Dryden translate this phrase as: "Fate, and the dooming gods, are deaf to tears." http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0052%3Abook%3D6%3Acard%3D337

and that did not stop them from sinning. And even after regeneration, we sometimes still become hardened again. We must, therefore, look for another cause of evil, and I doubt whether even the Angels are aware of it. Yet, they never stop being happy and praising God. Boethius listened more to the answer of philosophy than to that of St. Paul; that is what made him fail. Let us believe in Jesus Christ, he is the virtue and the wisdom of God: he teaches us that God wants the salvation of all; that he does not want the death of the sinner. Let us therefore put our trust in the divine mercy, and let us not by our vanity and our malice disqualify ourselves from receiving it.

[Here starts Leibniz' critical extension of Valla's fable about Sextus]

This dialogue of Valla's is excellent, even though one must take exception to some points in it: but its chief defect is that it cuts the knot and that it seems to condemn providence under the name of Jupiter, making him almost the author of sin. Let us therefore carry the little fable still further. Sextus, leaving Apollo and Delphi, seeks out Jupiter at Dodona. He makes sacrifices and states his complaints. Why have you condemned me, O great God, to be wicked and unhappy? Change my fate and my heart, or acknowledge your error.

Jupiter answers him: If you will renounce Rome, the Fates shall spin for you different fates, you shall become wise, you shall be happy.

Sextus: Why must I renounce the hope of a crown? Can I not come to be a good king? Jupiter: No, Sextus; I know better what you need. If you go to Rome, you are lost. Sextus,

not being able to resolve upon so great a sacrifice, went forth from the temple, and abandoned himself to his fate.

Theodorus, the High Priest, who had been present at the dialogue between the god and Sextus, addressed these words to Jupiter: Your wisdom is to be revered, O great ruler of the gods. You have convinced this man of his error. There is nothing else to say, he now has to attribute his unhappiness to his own evil will. But your faithful worshippers are amazed; they would like to admire your goodness, as well as your greatness; it rested with you to give him a different will.

Jupiter: Go to my daughter Pallas [Athena], she will teach you what I had to do.

[In Leibniz' extension of Valla's fable, Theodorus goes to Athens and is instructed by Pallas Athena, who shows him a pyramid of infinitely descending rooms, each of which represents a rough outline of a possible world. Each of these rooms contains a book of its destinies, in which the full details of everything that happened and will happen in that possible world can be traced. This means that the pyramid is both an infinite collection of possible worlds and a library containing an infinite numbers of books of destinies that specify the full details of these possible worlds.]

Theodorus journeyed to Athens. He was ordered to lie down to sleep in the temple of the Goddess. Dreaming, he found himself transported to an unknown country. There stood a palace of inconceivable splendour and immense grandeur. The goddess Pallas appeared at the gate, surrounded by rays of dazzling majesty.

Qualisque videri Coelicolis et quanta solet [visibly divine, and with that mien of majesty she wears]⁹

She touched the face of Theodorus with an olive-branch she held in her hand. And behold, Theodorus could now endure the divine splendour of the daughter of Jupiter and of everything she had to show him.

Pallas said to him: Jupiter who loves you, recommended you to me, to be instructed. You see here the palace of Destinies where I keep watch. There are representations here, not only of

⁹ Virgil, *Aeneid*, II, 591-592. I have used Dryden's translation. http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.02.0052%3Abook%3D2%3Acard%3D 588

what takes place, but also of all that is possible. And Jupiter, reviewing [revenue] this before the beginning of the existing world, digested [digéré] the possibilities [les possibilités] into worlds and chose the best of all. He sometimes comes to visit these places, to enjoy the pleasure of recapitulating things and of renewing his own choice, which cannot fail to please him. I only have to say it and we will get to see an entire world [tout un monde] that my father could have produced, in which representations will be found of everything one could demand of it. In this way, one can still get to know what would happen if such and such a possibility [telle on telle possibilité] were to exist. And whenever the conditions for such a case would not be determined enough, there will be as many different worlds available as one wishes, which will answer the same question in as many different ways as possible.

You learnt geometry in your youth, like all well-educated Greeks. You know therefore that when the conditions of a required point do not sufficiently determine it, and there is an infinite number of them, they all fall into what the geometricians call a locus, and this locus at least (which is often a line) will be determinate. Thus, you can picture to yourself an ordered succession of worlds, all of which (and only them) will contain the case in question, and will vary its circumstances and its consequences. But if you pose a case that differs from the actual world [du monde actuel] only in a one definite thing and its outcomes, a specific determinate world [monde détermine] will answer you. These worlds are all here, that is, in ideas. I will show you where to find, not completely the same Sextus that you have seen (that cannot be, he always carries with him what he will be) but several Sextuses approaching him, possessing everything you already know of the true Sextus, but not everything that is already within him imperceptibly, nor, consequently, everything that will still happen to him. In one world you will find a very happy and elevated Sextus, in another a Sextus content with a mediocre state. Sextuses of all kinds and in an infinity of ways.

Thereupon the Goddess led Theodorus into one of the rooms [un des appartements] of the palace: when he had entered, it was no longer a room, it was a world.

Solemque suum, sua sidera norat [it has its own sun, its own stars].

At the command of Pallas, Dodona emerged, as well as the temple of Jupiter with Sextus coming out of it; they heard him say that he would obey the god. Next, he is going to a city lying between two seas, similar to Corinth. He buys a small garden there; cultivating it, he finds a treasure; he becomes a rich man, enjoying affection and respect; he dies at a great age, beloved by the whole city.

Theodorus saw the whole life of Sextus as in a glance, and as in a theatre performance [une représentation de théâtre]. There was a large volume with writings [un grand volume d'écritures] in this room. Theodorus couldn't help asking what these writings entailed. The goddess told him: this is the history of the world we are currently visiting; it is the book of its destinies [le livre de ses destinées]. On the forehead of Sextus you have seen a number, look in this book for the place it indicates. Theodorus looked for it, and found there a more exhaustive version of the history of Sextus than the abridged one he had seen.

Put your finger on any line you please, Pallas told him, and you will see an actual representation, in all its details, of what the line roughly indicates. He obeyed, and he saw all the characteristics of the life of this Sextus appear. They passed into another room, and behold there was another world, {another book}, 10 another Sextus, who, leaving the temple, and having resolved to obey Jupiter, went to Thrace. There he married the daughter of the king, who had no other children; and succeeded him. He is adored by his subjects. They went into other rooms, and they always saw new scenes.

¹⁰ In the 1747 edition the words 'un autre livre' have been added.

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The rooms rose into a pyramid, continuously becoming more beautiful as one climbed towards the top; representing more beautiful worlds. They finally reached the highest room which completed the pyramid, and which was the most beautiful of all; for the pyramid had a beginning, but one could not see its end; it had an apex, but no base; it kept multiplying to infinity. This is (as the goddess explained) because among an infinite number of possible worlds [une infinité de mondes possibles], there must be one which is the best of all [le meilleur de tous], otherwise God would not have decided to create any of them; at the same time each one has still less perfect worlds below it: that is why the pyramid descends to infinity.

Theodorus, entering this highest room, became ecstatic; he needed the help of the goddess; a drop of a divine liquid placed on his tongue restored him; he was overwhelmed with joy. We are in **the world that is truly actual** [*le vrai monde actuel*] (said the Goddess) and you are at the source of happiness. This is what Jupiter is preparing for you if you continue to serve him faithfully.

There is Sextus as he actually is and will be. He leaves the temple in a rage; he scorns the counsel of the gods. You see him going to Rome, creating confusion everywhere, raping his friend's wife. He and his father are expelled, beaten, unhappy. If Jupiter had placed here a Sextus happy at Corinth, or a king in Thrace, it would no longer be this world. And yet he could not have failed to choose this world, which surpasses all others in perfection, and forms the apex of the pyramid. Otherwise, Jupiter would have betrayed his wisdom, banishing me, his daughter. You see that my father did not make Sextus wicked; he has been like this for all eternity, and he was always like this out of his own free will. He was only granted existence because my father's wisdom could not refuse it to the world in which this Sextus is included, making him pass from the region of possibles [la région des possibles] to that of actual beings [des êtres actuels].

The crime of Sextus serves great things; a great empire will arise, providing great examples. All of this is nothing in comparison to the value of the totality of that world [du total de ce monde] whose beauty you will admire when—after a happy passage from this mortal state to another, better one—the gods will have made you capable of knowing it.

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At that moment Theodorus wakes up, gives thanks to the Goddess, provides justice to Jupiter, and—full of all he has seen and heard—continues of fulfil the office of High Priest with all the zeal of a true servant of his God, and with all the joy a mortal is capable of.

It seems to me that the continuation of Valla's fiction [fiction] may clarify the difficulty he did not wish to touch upon. If Apollo has well represented the divine science of vision [la science divine de vision] (which concerns all that exists), I hope that Pallas did not do too badly in playing the role of what is called the science of simple intelligence [la science de simple intelligence] (which concerns all that is possible), where, finally, we must seek the source of things.

DE SUMA RERUM

My Principle is; Whatever Can Exist and is Compatible with Others, Exists¹¹ 12 December 1676

[This is a little note from Leibniz' metaphysical papers about his later notion 'compossibility'; here he still uses the equivalent notion 'compatibility' or the 'compatible']

There is no need for the multitude of things to be increased by a plurality of worlds; for there is no number of things which is not in this one world, and indeed in any part of it.¹²

To introduce another genus of existing things, and as it were another world which is also infinite, is to abuse the name of existence; for it cannot be said whether those things exist now or not. But existence, as it is conceived by us, involves a certain determinate time; or, we say that that thing exists of which it can be said at some certain moment of time, 'That thing now exists.''

The multitude of things is greater in the whole than in apart, even in an infinite multitude. It is not superfluous to discuss the vacuum of forms, ¹³ so that it can be shown that not all things which are possible *per se* can exist together with other things. For otherwise there will be many absurdities; nothing can be conceived which is so absurd that it does not exist in the world—not only monsters, but also evil and miserable minds, and also injustices, and there would be no reason why God should be called good rather than evil, and just rather than unjust. There could be some world in which all good people are punished with eternal penalties, and all evil people would be rewarded, and would expiate crime with happiness.

The immortality of the mind is proved immediately by my method. For it is possible in itself, and is compossible¹⁴ with all other things; or, it does not impair the course of things.¹⁵ This is because minds have no volume. But my principle is: whatever can exist and is compatible with others, exists. For the sole reason for limiting existence, for all possibles, must be that not all are compatible. So the sole reason for limitation is that those things should preferably exist which involve the greatest amount of reality.

If all possibles were to exist, there would be no need of a reason for existing, and mere possibility would be enough. So there would not be a God, except in so far as he is possible. But a God of the kind in whom the pious believe would not be possible, if the opinion of those who believe that all possibles exist were true.

A dialogue concerning the souls of the brutes between Pythagoras and Descartes, who have met in the Elysian fields.¹⁶

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¹¹ Taken from: G. W. Leibniz, *De Summa Rerum: Metaphysical Papers, 1675-1676.* Transl. with an. Introduction and Notes by G. H. R. Parkinson. (New Haven and London: Yale University Press, 1992), 102-105.

¹² Compare Leibniz's view (No, 3 above, A 474) that matter is actually subdivided into an infinity of points.

¹³ Cf, No. 3 above, A 473.

¹⁴ For the term "compossible," compare a table of definitions, second half of 1671-early 1672? (A VI.2, 498): "Compossibles are those, one of which being given, it does not follow that the other is negated; or, those of which one is possible, the other being assumed."

¹⁵ The phrase "cursus rerum" is a classical expression, found m Cicero and Tacitus.

¹⁶ An idea for a work which Leibniz did not write. The mature Leibniz rejected the Pythagorean idea of the transmigration of souls and put forward instead the idea of the transformation of one and the same animal: see, e.g., *Systeme Nouveau*, 1695 (GP IV, 481). He also rejected what he took to be Descartes' idea that the lower animals are mere automata, without souls: e.g., *Systeme Nouveau*, GP IV, 478.

PHILOSOPHICAL PAPERS AND LETTERS

69. Letters to Louis Bourguet¹⁷

[An early supporter of Leibniz's views, with a keen interest in their applications to natural science, Louis Bourguet (1678-1742) was a merchant and scholar of broad interests who lived in Venice from 1711 to 1715. The correspondence of the two men began in 1709 on matters relating to the origin of the alphabet, proceeded to problems of the Theodicy, and later raised important questions about Leibniz's consistency in matters of physics, biology, and historical change.]

Hanover, December 1714

I have at last received the letter which you sent by Mr. Hermann, and I am pleased to see your comments on my *Theodicy*. I quite agree that the idea of possibles necessarily implies the *idea of the existence* of a being who could produce the possible. But the idea of possibles does not at all imply the *existence itself* of this being, as you seem to hold when you say, "If there were no such being, nothing would be possible." In order for the thing to be possible, it suffices that a being should be possible capable of producing the thing. Generally speaking, if a thing is to be possible, it suffices that its efficient cause should be possible; I make an exception of the supreme efficient cause, which must exist in fact. But this belongs to another chapter - that nothing would be possible if the necessary being did not exist. This is because the reality of possibles and of eternal truths must be founded upon something real and existent.

I do not agree that "in order to know of the romance if 'Astrea' is possible, it is necessary to know its connections with the rest of the universe". It would indeed be necessary to know this if it is to be *compossible* with the universe, and as a consequence to know if this romance has taken place, is taking place, or will take place in some corner of the world, for surely there would be no place for it without such connections. And it is very true that what is not, never has been, and never will be is not possible, if we take the *possible* in the sense of the *compossible*, as I have just said. It may be that Diodorus, Abelard, Wycliffe, and Hobbes had this idea in their heads without completely untangling it. But whether the 'Astrea' is possible in an absolute sense is another question, to which I answer 'Yes', because it does not imply any contradiction. Yet in order for this novel to exist in fact, it would be necessary for the rest of the universe also to be entirely different from what it is - and it is possible that it should be otherwise.

I am in no greater agreement, Sir, with your added remark that, "in order to be sure that there is an infinity of possible worlds, we should have to think of them as ended and determined". This comes from the same confusion of possibles for compossibles. When you say that "one world that is infinite (in every respect) must in a sense include all possible worlds", I agree - in the sense which I have given, taking possibles to mean compossibles.

You also say that "one infinite series contains all possible numbers". I cannot agree with this either, for the series of square numbers is infinite, yet it does not contain all possible numbers. You add to this the words: "If one considers the universe as a collection, one cannot say that there could be many worlds in it." This would be true if the universe were a collection of all possibles, but it is not, since all possibles are not compossible. Thus the universe is a collection of a certain order of compossibles only, and the actual universe is a collection of all the possibles which exist, that is to say, those which form the richest composite. And since there are different combinations of possibilities, some of them better than others, there are many possible universes, each collection of compossibles making up one of them.

I can see no reason why "one cannot say in a rigorous sense that our intellects conceive of possibilities which will never exist". Perhaps there are figures of geometry and of surd numbers which have never existed and never will. Are they any the less possible, that is to say, less knowable?

¹⁷ Taken from: Gottfried Wilhelm Leibniz, *Philosophical Papers and Letters*. Translated and edited, with an Introd. by Leroy E. Loemker. (Dordrecht: Kluwer, 1989), 661-663.

"Everything which comes from God (you say) necessarily bears the characteristics of order, and consequently is admitted to existence as the product of his perfections." These are your words, with which I agree. They prove that only the best exists but not that only the best is possible unless you change the meaning of terms. I call possible anything which is perfectly conceivable and which, as a result, has an essence or an idea, without raising the question of whether the rest of the world permits it to become existent.

So far I have given an exact analysis of your objections, after which there is no need to run through what you say about the actions of God and of intelligent creatures, about a private man becoming king, about the journey of someone like Bacchus or Hercules to India, about the possibility of sin, etc. It seems to me that these objections are the aftereffects of reading Mr. Poiret. But when you say that "to hold that a world without evil, preferable in order to ours is impossible, is to let Mr. Bayle win", I do not rightly understand the reasons which you offer, for what you say contains no 'becauses' or 'therefores'. So I do not consider it an objection.

You add that "evil counts for nothing in the decisions of God". If this is understood as you seem to explain it a little later, that "the consideration of evil is not great enough to counterbalance the good", I agree with it. In this way the striving for the greatest good still involves the admission of moral evil, though it seems that you would prefer to agree to this only for metaphysical evil, or at most for some physical evil, though you add no reason for this limitation. "As for metaphysical evil (you say) I do not consider it as evil." But if you admit that there is metaphysical good, Sir, the privation of this good will be metaphysical evil. When an intelligent being loses his understanding without any pain and without sin - and therefore without any physical or moral evil - do you not consider this as an evil? In any case you would merely be changing the meaning of terms.

So I find, Sir, that you could have satisfied all your doubts if you had taken the pains to think carefully about what I have already said. Yet I am glad that I have been able to show you this.

What you say about the development of life seems to me well taken. Those human seminal animals which never attain a development of reason do not have this reason enveloped within them.

In the way in which I define perception and appetite, all monads must necessarily be endowed with them. I hold *perception* to be the representation of plurality in the simple, and *appetite* to be the striving from one perception to another. But these two things occur in all monads, for otherwise a monad would have no relation to the rest of the world. I do not see how you can deduce any Spinozism from this; to do so is to jump at conclusions. On the contiary, it is through these very monads that Spinozism is destroyed, for there are just as many true substances, as many living mirrors of the universe which subsist always, or as many concentrated universes, as there are monads; according to Spinoza, on the contrary, there is only one substance. He would be right if there were no monads; then everything except God would be of a passing nature and would vanish into simple accidents or modifications, since there would be no substantial foundation in things, such as consists in the existence of monads [...].

51. On the Radical Origination of Things¹⁸

November 23, 1697

[Leibniz's shift of emphasis to a posteriori reasoning for the existence of God is nowhere better exemplified than in this essay, unpublished until 1840, when Erdmann included it in his edition. The new phase of his metaphysics is concerned with the implications of particularity and its difference from mere possibility. The problem of the paper is the implication of this particular natural order for the nature of the ultimate harmony of ideas, and it is therefore also important for his hedonistic perfectionism in ethics and aesthetics. The close relationship with the preceding and following essays will be apparent (Nos. 50,52, and 53). At the close there is a growing emphasis on temporal progress which is characteristic of Leibniz's later thought.]

[...] To explain a little more distinctly, however, how temporal, contingent, or physical truths arise out of truths that are eternal and essential, or if you like, metaphysical, we should first acknowledge that from the very fact that something exists rather than nothing, there is a certain urgency [exigentia] toward existence in possible things or in possibility or essence itself - a pretension to exist, so to speak - and in a word, that essence in itself tends to exist. From this it follows further that all possible things, or things expressing an essence or possible reality, tend toward existence¹⁹ with equal right in proportion to the quantity of essence or reality, or to the degree of perfection which they involve; for perfection is nothing but quantity of essence.

Hence it is very clearly understood that out of the infinite combinations and series of possible things, one exists through which the greatest amount of essence or possibility is brought into existence. There is always a principle of determination in nature which must be sought by maxima and minima; namely, that a maximum effect should be achieved with a minimum outlay, so to speak. And at this point time and place, or in a word, the receptivity or capacity to the world, can be taken for the outlay, or the terrain on which a building is to be erected as commodiously as possible, the variety of forms corresponding to the spaciousness of the building and the number and elegance of its chambers. The Case is like that of certain games in which all the spaces on a board are to be filled according to definite rules, but unless we use a certain device, we find ourself at the end blocked from the difficult spaces and compelled to leave more spaces vacant than we needed or wished to. Yet there is a definite rule by which a maximum number of spaces can be filled in the easiest way. Therefore, assuming that h is ordered that there shall be a triangle with no other further determining principle, the result is that an equilateral triangle is produced.²⁰ And assuming that there is to be motion from one point to another without anything more determining the route, that path will be chosen which is easiest or shortest. Similarly, once having assumed that being involves more perfection than nonbeing, or that there is a reason why something should come to exist rather than nothing, or that a transition from possibility to actuality must take place, it follows that even if there is no further determining principle, there does exist the greatest amount possible in proportion to the given capacity of time and space (or the possible order of existence), in much the same way as tiles are laid so that as many as possible are contained in a given space.

We can now understand in a wonderful way how a kind of divine mathematics or metaphysical mechanism is used in the origin of things and how the determination of the maximum takes place. So the right angle is the determined one of all angles in geometry, and so liquids placed in a different medium compose themselves in the most spacious figure, a sphere.

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¹⁸ The fuller and more exact meaning of this title, here translated literally, is 'On the Process by Which the World Comes into Being from Its Roots', that is, 'On the First Principles of Creation'. Taken from: Gottfried Wilhelm Leibniz, *Philosophical Papers and Letters*. Translated and edited, with an Introd. by Leroy E. Loemker. (Dordrecht: Kluwer, 1989), 486-491.

¹⁹ Reading existentiam (with E.'s errata) for essentiam (G.).

²⁰ For Leibniz's more specific argument on this point see the preceding selection (No. 50), particularly the closing paragraph.

But best of all is the example in ordinary mechanics itself; when many heavy bodies pull upon each other, the resulting motion is such that the maximum possible total descent is secured.²¹ For just as all possibilities tend with equal right to existence in proportion to their reality, so all heavy objects tend to descend with equal right in proportion to their weight. And just as, in the latter case, that motion is produced which involves the greatest possible descent of these weights, so in the former a world is produced in which a maximum production of possible things takes place.

Thus we now have a physical necessity derived from a metaphysical necessity. For even if the world is not necessary metaphysically, in the sense that its contrary would imply a contradiction or logical absurdity, it is nonetheless necessary physically, or determined in such a way that its contrary would imply imperfection or moral absurdity. And just as possibility is the principle of essence, so perfection or degree of essence is the principle of existence (since the degree of perfection determines the largest number of things that are compossible). This shows at once how there may be freedom in the Author of the world, even though he does all things determinately because he acts on the principle of wisdom or perfection. Indifference arises from ignorance, and the wiser a man is, the more determined he is toward the most perfect.

But, you will say, however elegant this comparison of a kind of determining metaphysical mechanism with the physical mechanism of heavy bodies may seem, it is faulty in this respect heavy bodies which act against each other truly exist, whereas possibilities or essences, whether prior to or abstracted from existence, are imaginary or fictitious, and therefore we cannot look for a reason for existence in them. I answer that neither these essences nor the so-called eternal truths about them are fictitious but exist in a certain region of ideas, if I may so call it, namely, in God himself, who is the source of all essence and of the existence of the rest. The very existence of the actual series of things shows that this is not merely a gratuitous assertion of mine. For since no reason can be found for this series within itself, as I have shown above, but this reason is to be sought in metaphysical necessity or in eternal truth, and since, furthermore, existing things can come into being only from existing things, as I have also explained, it is necessary for eternal truths to have their existence in an absolutely or metaphysically necessary subject, that is, in God, through whom those possibilities which would otherwise be imaginary are (to use an outlandish but expressive word) realized.²²

And we do in fact observe that everything in the world takes place in accordance with the laws of the eternal truths and not merely geometric but also metaphysical laws; that is, not merely according to material necessities but also according to formal reasons. And not only is this true in general, on the principle which we have just explained - that there should exist a world rather than none and that this world should exist rather than another. (This may be learned in any case from the tendency of possibles toward existence.) But it is true also when we descend to special cases and see the wonderful way in which metaphysical laws of cause, power, and action are present throughout all nature, and how they predominate over the purely geometric laws of matter themselves, as I found to my great admiration when I was explaining the laws of motion. As I have fully explained elsewhere, I was at length compelled to give up the law of the geometric composition of conatuses which I had formerly defended when, as a youth, I was more materialistic.²³

We therefore have the ultimate reason for the reality of essences as well as existences in one being, which must necessarily be greater, higher, and prior to the world itself, since not only the existing things which compose the world but also all possibilities have their reality through it. But

²¹ The example apparently alluded to is the catenary, discovered by John and James Bernoulli, and solved by Leibniz, Huygens, and others in 1696. It was easily solved as a problem in maxima (see Mach, The Science of Mechanics, pp. 85-89).

²² The barbarism is the word *realisentur*. The verb occurs frequently in crucial passages in the correspondence with Des Bosses (see p. 600, and p. 615, note 9).

²³ The allusion is to the Theory of Abstract Motion (1671) (No. 8). Leibniz explains his change of opinion in detail in No. 46, Part I.

because of the interconnection of all these things, this ultimate reason can be found only in a single source. It is evident, however, that existing things are continuously issuing from this source and are being produced and have been produced by it, since no reason appears why one state of the world should issue from it rather than another, that of yesterday rather than today's. It is clear, too, how God acts not merely physically but freely as well, and how there is in him not only the efficient but the final cause of the world. Thus we have in him the reason not merely for the greatness and power in the world mechanism as already established, but also for the goodness and wisdom exerted in establishing it.

In case anyone may think that this confuses moral perfection or goodness with metaphysical perfection or greatness, and may deny the former while granting the latter, it must be recognized that it follows from what has been said that the world is not only the most perfect naturally or if you prefer, metaphysically - in other words, that that series of things has been produced which actually presents the greatest amount of reality - but also that it is the most perfect morally, because moral perfection is truly natural²⁴ in minds themselves. Hence the world not only is the most wonderful mechanism but is also, insofar as it consists of minds, the best commonwealth, through which there is conferred on minds as much felicity or joy as possible; it is in this that their natural perfection consists.

You may object, however, that we experience the very opposite of this in the world, for often the very worst things happen to the best; innocent beings, not only beasts but men, are struck down and killed, even tortured. In fact, especially if we consider the government of mankind, the world seems rather a kind of confused chaos than something ordained by a supreme wisdom. So it seems at first sight, I admit, but when we look more deeply, the opposite can be established. A priori it is obvious from the principles which I have already given that the highest perfection possible is obtained for all things and therefore also for minds.

And as the jurisconsults say, it is truly unjust to render a judgment without having studied the whole law. We know but a very small part of an eternity stretching out beyond all measure. How tiny is the memory of the few thousand years which history imparts to us! Yet from such slight experience we venture to judge about the immeasurable and the eternal; as if men born and reared in prison or in the underground salt mines of Sarmatia should think that there is no other light in the world but the wretched torch which is scarcely sufficient to guide their steps. If we look at a very beautiful picture but cover up all of it but a tiny spot, what more will appear in it, no matter how closely we study it, indeed, all the more, the more closely we examine it, than a confused mixture of colors without beauty and without art. Yet when the covering is removed and the whole painting is viewed from a position that suits it, we come to understand that what seemed to be a thoughtless smear on the canvas has really been done with the highest artistry by the creator of the work. And what the eyes experience in painting is experienced by the ears in music. Great composers very often mix dissonances with harmonious chords to stimulate the hearer and to sting him, as it were, so that he becomes concerned about the outcome and is all the more pleased when everything is restored to order. Similarly we may enjoy trivial dangers or the experience of evils from the very sense they give us of our own power or our happiness or our fondness for display. Or again, in witnessing performances of ropedancing or sword-dancing [sauts perilleux], we are delighted by the very fears they arouse, and we playfully half-drop children, pretending to be about to throw them away for much the same reason that the ape carried King Christian of Denmark, when he was still a baby dressed in long clothes, to a rooftop and then, while everyone waited in terror, returned him, as if in play, to his cradle. By the same principle it is insipid always to eat sweets; sharp, sour, and even bitter things should be mixed with them to excite the taste. He who has not tasted the bitter does not deserve the sweet; indeed, he will not appreciate it. This is

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²⁴ Physica. The extension of nature to include human purposes and actions is characteristic of much of Leibniz's writing (see p. 62, note 65).

the very law of enjoyment, that pleasure does not run an even course, for this produces aversion and makes us dull, not joyful.

But what I have said about a part being disordered without destroying the harmony in the whole must not be interpreted as if there is no reason for the parts or as if it were enough for the world to be perfect as a whole, even though the human race should be wretched and there should be no concern in the universe for justice and no account taken of us, as is held by some people who have not made sound judgments about the totality of things. For we must recognize that just as care is taken in the best-ordered republic that individuals shall fare as well as possible, so the universe would not be perfect enough unless as much care is shown for individuals as is consistent with the universal harmony. No better measure for this matter can be set up than the law of justice itself, which dictates that each one shall take part in the perfection of the universe and his own happiness according to the measure of his own virtue and the degree to which his will is moved toward²⁵ the common good. And in this very thing is fulfilled what we call the charity and the love of God, in which alone the force and power of the Christian religion also consist, according to the opinion of wise theologians. Nor should it seem remarkable that so much respect should be shown to minds in the universe, since they resemble most closely the image of the supreme Author and are related to him not merely as machines to their maker - as are other beings - but also as citizens to their prince. Moreover, they are to endure as long as the universe itself and in some way to express the whole and concentrate it in themselves, so that it can be said that minds are total-parts.

As for the afflictions, especially of good men, however, we must take it as certain that these lead to their greater good and that this is true not only theologically but also naturally. So a seed sown in the earth suffers before it bears fruit. In general, one may say that though afflictions are temporary evils, they are good in effect, for they are short cuts to greater perfection. So in physics the liquids which ferment slowly also are slower to settle, while those in which there is a stronger disturbance settle more promptly, throwing off impurities with greater force. We may well call this stepping back in order to spring forward with greater force [qu'on recule pour mieux sauter\ These views must therefore be affirmed not merely as gratifying and comforting but also as most true. And in general, I hold that there is nothing truer than happiness and nothing happier and sweeter than truth.

As the crown of the universal beauty and perfection of the works of God, we must also recognize that the entire universe is involved in a perpetual and most free progress, so that it is always advancing toward greater culture. Thus a great part of our earth has now received cultivation and will receive it more and more. And though it is true that some sections occasionally revert into wilderness or are destroyed and sink back again, this must be understood in the same sense in which I have just explained the nature of afflictions, namely, that this very destruction and decline lead to a better result, so that we somehow gain through our very loss.

To the objection which could be offered, moreover, that if this were so, the world should long since have become a paradise, there is an answer near at hand. Although many substances have already attained great perfection, yet because of the infinite divisibility of the continuum, there always remain in the abyss of things parts which are still asleep. These are to be aroused and developed into something greater and better and in a word, to a better culture. And hence progress never comes to an end.

²⁵ Reading erga (Erd.) for ergo (G.).

EXTRA MATERIAL

Theodicy: Possible World *Theodicy*, § 7-10, 42, 52-53, 168

[Excerpts from the Theodicy about the notion 'possible worlds']

- 7. God is the first reason of things, for such things as are bounded, as all that which we see and experience, are contingent and have nothing in them to render their existence necessary, it being plain that time, space and matter, united and uniform in themselves and indifferent to everything, might have received entirely other motions and shapes, and in another order. Therefore one must seek the reason for the existence of the world, which is the whole assemblage of contingent things, and seek it in the substance which carries with it the reason for its existence, and which in consequence is necessary and eternal. Moreover, this cause must be intelligent: for this existing world being contingent and an infinity of other worlds being equally possible, and holding, so to say, equal claim to existence with it, the cause of the world must needs have had regard or reference to all these possible worlds in order to fix upon one of them. This regard or relation of an existent substance to simple possibilities can be nothing other than the understanding which has the ideas of them, while to fix upon one of them can be nothing other than the act of the will which chooses. It is the power of this substance that renders its will efficacious. Power relates to being, wisdom or understanding to truth, and will to good. And this intelligent cause ought to be infinite in all ways, and absolutely perfect in power; in wisdom and in goodness, since it relates to all that which is possible. Furthermore, since all is connected together, there is no ground for admitting more than one. Its understanding is the source of essences, and its will is the origin of existences. There in few words is the proof of one only God with his perfections, and through him of the origin of things.
- 8. Now this supreme wisdom, united to a goodness that is no less infinite, cannot but have chosen the best. For as a lesser evil is a kind of good, even so a lesser good is a kind of evil if it stands in the way of a greater good; and there would be something to correct in the actions of God if it were possible to do better. As in mathematics, when there is no maximum nor minimum, in short nothing distinguished, everything is done equally, or when that is not possible nothing at all is done: so it may be said likewise in respect of perfect wisdom, which is no less orderly than mathematics, that if there were not the best (optimum) among all possible worlds, God would not have produced any. I call World' the whole succession and the whole agglomeration of all existent things, lest it be said that several worlds could have existed in different times and different places. For they must needs be reckoned all together as one world or, if you will, as one Universe. And even though one should fill all times and all places, it still remains true that one might have filled them in innumerable ways, and that there is an infinitude of possible worlds among which God must needs have chosen the best, since he does nothing without acting in accordance with supreme reason.
- 9. Some adversary not being able to answer this argument will perchance answer the conclusion by a counter-argument, saying that the world could have been without sin and without sufferings; but I deny that then it would have been better. For it must be known that all things are connected in each one of the possible worlds: the universe, whatever it may be, is all of one piece, like an ocean: the least movement extends its effect there to any distance whatsoever, even though this effect become less perceptible in proportion to the distance. Therein God has ordered all things beforehand once for all, having foreseen prayers, good and bad actions, and all the rest; and each thing as an idea has contributed, before its existence, to the resolution that has been made upon the existence of all things; so that nothing can be changed in the universe (any more than in a number) save its essence or, if you will, save its numerical individuality. Thus, if the smallest evil that comes to pass in the world were 131 missing in it, it would no longer be this world; which,

with nothing omitted and all allowance made, was found the best by the Creator who chose it.

10. It is true that one may imagine possible worlds without sin and without unhappiness, and one could make some like Utopian or Sevarambian romances: but these same worlds again would be very inferior to ours in goodness. I cannot show you this in detail. For can I know and can I present infinities to you and compare them together? But you must judge with me ab effectu, since God has chosen this world as it is. We know, moreover, that often an evil brings forth a good whereto one would not have attained without that evil. Often indeed two evils have made one great good: Et si fata volunt, bina venenajuvant. Even so two liquids sometimes produce a solid, witness the spirit of wine and spirit of urine mixed by Van Helmont; or so do two cold and dark bodies produce a great fire, witness an acid solution and an aromatic oil combined by Herr Hoffmann. A general makes sometimes a fortunate mistake which brings about the winning of a great battle; and do they not sing on the eve of Easter, in the churches of the Roman rite: 0 certe necessarium A.dae peccatum, quod Christi morte deletum est! 0 felix culpa, quae talem ac tantum meruit habere Redemptorem!

[...]

42. It would be long and wearisome to enter here into the replies and rejoinders coming from one side and the other, and it will suffice for me to explain how I conceive that there is truth on both sides. For this result I resort to my principle of an infinitude of possible worlds, represented in the region of eternal verities, that is, in the object of the divine intelligence, where all conditional futurities must be comprised. For the case of the siege of Keilah forms part of a possible world, which differs from ours only in all that is connected with this hypothesis, and the idea of this possible world represents that which would happen in this case. Thus we have a principle for the certain knowledge of contingent futurities, whether they happen actually or must happen in a certain case. For in the region of the possibles they are represented as they are, namely, as free contingencies. Therefore neither the foreknowledge of contingent futurities nor the foundation for the certainty of this foreknowledge should cause us perplexity or seem to prejudice freedom. And though it were true and possible that contingent futurities consisting in free actions of reasonable creatures were entirely independent of the decrees of God and of external causes, there would still be means of foreseeing them; for God would see them as they are in the region of the possibles, before he decrees to admit them into existence.

[...]

52. All is therefore certain and determined beforehand in man, as everywhere else, and the human soul is a kind of spiritual automaton, although contingent actions in general and free action in particular are not on that account necessary with an absolute necessity, which would be truly incompatible with contingency. Thus neither futurition in itself, certain as it is, nor the infallible prevision of God, nor the predetermination either of causes or of God's decrees destroys this contingency and this freedom. That is acknowledged in respect of futurition and prevision, as has already been set forth. Since, moreover, God's decree consists solely in the resolution he forms, after having compared all possible worlds, to choose that one which is the best, and bring it into existence together with all that this world contains, by means of the all-powerful word Fiat, it is plain to see that this decree changes nothing 154 — in the constitution of things: God leaves them just as they were in the state of mere possibility, that is, changing nothing either in their essence or nature, or even in their accidents, which are represented perfectly already in the idea of this possible world. Thus that which is contingent and free remains no less so under the decrees of God than under his prevision.

53. But could God himself (it will be said) then change nothing in the world? Assuredly he could not now change it, without derogation to his wisdom, since he has foreseen the existence of

this world and of what it contains, and since, likewise, he has formed this resolution to bring it into existence: for he cannot be mistaken nor repent, and it did not behove him to from an imperfect resolution applying to one part and not the whole. Thus, all being ordered from the beginning, it is only because of this hypothetical necessity, recognized by everyone, that after God's prevision or after his resolution nothing can be changed: and yet the events in themselves remain contingent. For (setting aside this supposition of the futuridon of the thing and of the prevision or of the resolution of God, a supposition which already lays it down as a fact that the thing will happen, and in accordance with which one must say, "Unumquodque, quando est, oportet esse, aut unumquodque, siquidem erit, oportet futurum esse'), the event has nothing in it to render it necessary and to suggest that no other thing might have happened in its stead. And as for the connexion between causes and effects, it only inclined, without necessitating, the free agency, as I have just explained; thus it does not produce even a hypothetical necessity, save in conjunction with something from outside, to wit, this very maxim, that the prevailing inclination always triumphs.

[...]

168. Metaphysical considerations also are brought up against my explanation of the moral cause of moral evil; but they will trouble me less since I have dismissed the objections derived from moral reasons, which were more impressive. These metaphysical considerations concern the nature of the possible and of the necessary; they go against my fundamental assumption that God has chosen the best of all possible worlds. There are philosophers who have maintained that there is nothing possible except that which actually happens. These are those same people who thought or could have thought that all is necessary unconditionally. Some were of this opinion because they admitted a brute and blind necessity in the cause of the existence of things: and it is these I have most reason for opposing. But there are others who are mistaken only because they misuse terms. They confuse moral necessity with metaphysical necessity: they imagine that since God cannot help acting for the best he is thus deprived of freedom, and things are endued with that necessity which philosophers and theologians endeavour to avoid. With these writers my dispute is only one of words, provided they admit in very deed that God chooses and does the best. But there are others who go further, they think that God could have done better. This is an opinion which must be rejected: for although it does not altogether deprive God of wisdom and goodness, as do the advocates of blind necessity, it sets bounds thereto, thus derogating from God's supreme perfection.

On Freedom Ca. 1679²⁶

[On November 27, 1677, when he was still occupied with Spinozistic approaches to metaphysics, Leibniz had had a discussion of freedom with the apostolic missionary Stem. He had long been concerned with the problem. This paper, though undated, clearly belongs to the period of 1679 or the years following, when his position is modified by the distinction between necessary and contingent truths. It also presents a popular interpretation of some of the logical studies of the period and relates them to the theological problems of God's omnipotence, human freedom, and sin. [F. de C., pp. 178-85]

[...] When I considered that nothing occurs by chance or by accident unless we resort to certain particular substances, that fortune apart from fate is an empty word, and that nothing exists unless certain conditions are fulfilled from all of which together its existence at once follows, I found myself very close to the opinions of those who hold everything to be absolutely necessary; believing that when things are not subject to coercion even though they are to necessity, there is freedom, and not distinguishing between the infallible, or what is known with certainty to be true, and the necessary.

But I was pulled back from this precipice by considering those possible things which neither are nor will be nor have been.²⁷ For **if certain possible things never exist, existing things cannot always be necessary**; otherwise it would be impossible for other things to exist in their place, and whatever never exists would therefore be impossible. For it cannot be denied that many stories, especially those we call novels, may be regarded as possible, even if they do not actually take place in this particular sequence of the universe which God has chosen - unless someone imagines that there are certain poetic regions in the infinite extent of space and time where we might see wandering over the earth King Arthur of Great Britain, Amadis of Gaul, and the fabulous Dietrich von Bern invented by the Germans. A famous philosopher of our century [Descartes] does not seem to have been far from such an opinion, for he expressly affirms somewhere that matter successively receives all the forms of which it is capable (*Principles of Philosophy*, Part III, Art. 47).²⁸ This opinion cannot be defended, for it would obliterate all the beauty of the universe and any choice of matters, not to mention here other grounds on which the contrary can be shown.

Having thus recognized the contingency of things, I raised the further question of a clear concept of truth, for I had a reasonable hope of throwing some light from this upon the problem of **distinguishing necessary from contingent truths**. For I saw that in every true affirmative proposition, whether universal or singular, necessary or contingent, **the predicate inheres in the subject or that the concept of the predicate is in some way involved in the concept of the subject**. I saw too that this is the principle of infallibility for him who knows everything a priori. But this very fact seemed to increase the difficulty, for, **if at any particular time the concept of**

²⁶ Taken from: Gottfried Wilhelm Leibniz, *Philosophical Papers and Letters*. Translated and edited, with an Introd. by Leroy E. Loemker. (Dordrecht: Kluwer, 1989), 263-266.

²⁷ See the distinction between possibility and compossibility made against Spinoza in No. 14, II, and in No. 20. Cf. p. 205, notes 7 and 9.

²⁸ This point is discussed in somewhat more detail in the letters to Philipp, end of January, 1680: "At present I recall only one of the two dangerous propositions, the location of which you want me to indicate. It is in the Principles of Philosophy, Part III, Article 47, in the following words: "And after all, it makes very little difference what we assume in this respect, because it must later be changed according to the laws of nature. Hardly anything can be assumed from which the same effect cannot be derived, though perhaps with greater trouble. For due to these laws, *matter takes on, successively, all the forms of which it is capable.* Therefore if we considered these forms in order, we could eventually arrive at that one which is our present world, so that in this respect no false hypothesis can lead us into error." I do not believe that a more dangerous proposition than this could be formulated. For if matter takes on, successively, all possible forms, it follows that nothing can be imagined so absurd, so bizarre, so contrary to what we call justice, that it would not have happened and will not some day happen. These are precisely the opinions which Spinoza has expounded more clearly, namely, that justice, beauty, and order are things merely relative to us but that the perfection of God consists in that magnitude of his activity by virtue of which nothing is possible or conceivable which he does not actually produce."

the predicate inheres in the concept of the subject, how can the predicate ever be denied of the subject without contradiction and impossibility, or without destroying the subject concept? A new and unexpected light arose at last, however, where I least expected it, namely, from mathematical considerations of the nature of the infinite. For there are two labyrinths in which the human mind is caught. One concerns the composition of the continuum; the other concerns the nature of freedom. And both arise from the same source, namely, the infinite. Since he could not unravel these two knots, or would not express his opinions of them, the famous philosopher whom I cited above chose to cut them with his sword, for he says (*Principles of Philosophy*, Part I, Arts. 40 and 41) that we can easily become involved in great difficulties if we try to reconcile God's foreordination with the freedom of the will but that we ought to refrain from such discussions because we cannot comprehend the nature of God. In the same work (Part II, Art. 35) he says that we ought not to doubt the infinite divisibility of matter, though we cannot grasp it. But this will not do, for it is one thing not to comprehend a thing, but another to comprehend its contradictory. It is therefore necessary at least to answer those arguments from which it seems to follow that freedom and the infinite divisibility of matter imply a contradiction.

It must be understood, then, that all created beings have a certain mark of the divine infinity impressed upon them and that this is the source of many wonderful matters which astound the human mind. For example, there is no portion of matter, however tiny, in which there is not a world of creatures, infinite in number. And there is no created substance, however imperfect, which does not act upon all the others and suffer action from all the others, and whose complex concept as this exists in the divine mind does not contain the whole universe, with all that ever is, has been, and will be. And there is no truth of fact or of individual things which does not depend upon an infinite series of reasons, though God alone can see everything that is in this series. This is the cause, too, why only God knows the contingent truths a priori and sees their infallibility otherwise than by experience.

A careful consideration of these matters **revealed a very essential difference between necessary and contingent truths**. Every truth is either original or derivative. Original truths are those for which no reason can be given; such are identities or immediate truths, which affirm the same thing of itself or deny its contrary of its contrary. There are in turn two genera of derivative truths, for some can be reduced to primary truths; the others can be reduced in an infinite progression. The former are necessary; the latter, contingent. A necessary proposition is one whose contrary implies a contradiction; such are all identities and all derivative truths reducible to identities. To this genus belong the truths said to be of metaphysical or geometrical necessity. For to demonstrate is merely, by an analysis of the terms of a proposition and the substitution of the definition or a part of it, for the thing defined, to show a kind of equation or coincidence of predicate and subject in a reciprocal proposition, or, in other cases, at least an inclusion of the one in the other, so that what was concealed in the proposition or was contained in it only potentially, is rendered evident or explicit by the demonstration. [...]

In contingent truths, however, though the predicate inheres in the subject, we can never demonstrate this, nor can the proposition ever be reduced to an equation or an identity, but the analysis proceeds to infinity, only God being able to see, not the end of the analysis indeed, since there is no end, but the nexus of terms or the inclusion of the predicate in the subject, since he sees everything which is in the series. Indeed, this truth itself arises in part from his intellect and in part from his will and so expresses his infinite perfection and the harmony of the entire series of things, each in its own particular way.

For us, however, there remain two ways of knowing contingent truths. The one is experience; the other, reason. We know by experience when we perceive a thing distinctly enough by our senses; by reason, however, when we use the general principle that nothing happens without a reason, or that the predicate always inheres in the subject by virtue of some reason. So we can

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²⁹ On the source and meaning of Leibniz's figure of the labyrinth see the Introduction, Sec. V and p. 60, note 22.

consider it as certain that God has made all things in the most perfect way, that he does nothing without a reason, and that nothing ever happens without its reason being understood by anyone who understands why the state of the world is as it is rather than otherwise. Sins arise from the aboriginal limitation of things; but God does not so much decree sins as he does the admission to existence of certain possible substances whose complete concept already involves the possibility of their freely sinning, and even connotes the whole series of events in which they figure as links. Nor should there be any doubt that God decrees only perfection or what is positive, while limitation with the sin which arises from it, is permitted only because it cannot be absolutely rejected if certain positive decrees are maintained. Nothing else would be congruent with wisdom than to compensate sin by a greater good that could not otherwise be obtained; but this cannot be discussed here.

In order to fix our attention, however, so that our mind will not wrestle with vague difficulties, an analogy comes to my mind between truths and proportions which seems admirably to clarify the whole matter and put it in a clear light. Just as the smaller number is contained in the larger in every proportion⁶ (or an equal in its equal), so in every truth the predicate is contained in the subject. And just as in every proportion between homogeneous quantities an analysis of equal or proportional terms can be carried out by subtracting the smaller from the larger, that is, taking away from the larger a part equal to the smaller, then subtracting the rest from the smaller, and so on, either until there is no remainder or to infinity; so also can we establish an analysis of truths, always substituting for a term its equivalent, so that the predicate will be resolved into elements already contained in the subject. But in proportions the analysis may sometimes be completed, so that we arrive at a common measure which is contained in both terms of the proportion an integral number of times, while sometimes the analysis can be continued into infinity, as when comparing a rational number with a surd; for instance, the side of a square with the diagonal.³⁰ Just so, truths are sometimes demonstrable or necessary, and sometimes free and contingent, so that they cannot be reduced to identities as if to a common measure, by any analysis. This is the essential distinction between truths as well as proportions.

Yet the science of geometry has mastered incommensurable proportions, and we have demonstrations even about infinite series. All the more are contingent or infinite truths subject to the knowledge of God and known by him, not by demonstration - for this would involve contradiction - but by an infallible vision. But this vision of God must not be thought of as a kind of empirical knowledge, as if he saw anything in the things distinct from himself, but as a priori knowledge in which he grasps the reasons for truths. For he sees possible things by considering his own essence; he sees those that have a contingent existence by considering his free will and his decrees, the first of which is that everything shall work in the best manner and with the highest reason. The so-called middle science is nothing but the knowledge of contingent possibles.

When all these matters are considered thoroughly, I do not think any difficulty can arise in this argument the solution of which cannot be derived from what has been said. If we admit this general concept of necessity - and everyone does admit it - namely, that **all propositions are necessary whose contraries imply a contradiction**, it is easily seen from a consideration of the nature of demonstration and analysis that there can and must be truths which cannot be reduced by any analysis to identities or to the principle of contradiction but which involve an infinite series of reasons which only God can see through. This is the nature of everything which is called free and contingent and especially of everything which involves space and time. As I have shown above, this follows from the very infinity of the parts of the universe and the mutual interdependence and nexus of all things.

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³⁰ Basically, Leibniz here considers truths as analogous to the relations between numbers in the real number system, necessary truths corresponding to rational ratios between real numbers, and contingent truths to ratios involving irrationals which can be resolved only serially. Thus 6/5 is perfectly analyzable by division, but y/1 or n involves an infinite series.