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Leibniz's World-Apart Doctrine

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Abstract Leibniz's World-Apart Doctrine states that every created substance is independent of everything except God. Commentators have connected the independence of substance asserted by World-Apart to a variety of important aspects of Leibniz's modal metaphysics, including his theory of compossibility and his notion of a possible world (including what possible worlds there are). But what sort of independence is at stake in World-Apart? I argue that there is not a single sense of "independence" at stake, but at least three: what I call "causal", "phenomenal", and "ontological" independence. Further, I distinguish two versions of each type of independence: what I call "basic" and "strict" versions. I argue that only basic-versions can be legitimately attributed to Leibniz. In light of this result, I conclude, *pace* previous commentators, that World-Apart has little impact on Leibniz's modal metaphysics.

1 Introduction

In the *Discourse on Metaphysics* (1686), Leibniz writes, "each substance is like a world apart [*Monde à part*], independent of all other things, except God" (A. VI. iv.1550/AG.47). This striking view has come to be known as Leibniz's World-Apart Doctrine.¹ World-Apart has clear connections to Leibniz's theory of substance, the relation between God and creatures, and other aspects of Leibniz's system. Recently, commentators have argued that World-Apart puts pressure on how to interpret many

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¹This label is courtesy of Steigh (1990), 180.

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of Leibniz's key modal doctrines: his theory of compossibility, his notion of possible worlds (including what possible worlds there are), and his views about God's choice to create this world, to name a few.²

However, World-Apart has not been thoroughly examined in its own right. In particular, what exactly does it mean to say that each substance is independent of all other things? What sort of independence is at stake here? Further, when did Leibniz come to endorse World-Apart? Does his commitment to World-Apart change over time or remain essentially the same? Finally, can sorting out the precise content of World-Apart give us insight into other aspects of Leibniz's system, such as his theory of substance or his modal metaphysics?

The present investigation will be a preliminary attempt to address these questions. Though I will not be able to answer them all completely, I aim to provide a solid beginning and a framework for further investigation. In what follows, I will focus on the following question about World-Apart, though I will have the opportunity to address some of the others as well:

1. What type of independence is at stake in Leibniz's commitment to World-Apart?

I will claim that there is not a single sense of "independence" in Leibniz's commitment to World-Apart. Instead, there are a variety of different senses. I will provide textual grounds for dividing the notion of independence into three general kinds: causal, phenomenal, and ontological. I will contend that all three general kinds of independence are aligned with World-Apart in texts ranging from 1686 until the end of Leibniz's life. My investigation will be restricted to texts from 1686 onwards, focusing on the *Discourse on Metaphysics* (1686), the *New System* (1695), and Leibniz's correspondence with Bartholomew Des Bosses (1706–1716).³ I will also consider the strength of each kind of independence, suggesting that the relevant notion of independence is weaker than commentators have previously supposed.

Following this discussion, I will briefly consider the impact that these results about World-Apart have for discussions of compossibility and possible worlds. In particular, I will consider the following questions:

2. What is the connection between World-Apart and Leibniz's notion of compossibility?

3. What is the connection between World-Apart and Leibniz's notion of a possible world (including what possible worlds there are)?

I will argue that, perhaps surprisingly, World-Apart has little impact on our answers to these questions. This is, in my view, due to two main factors: first as noted above, Leibniz's notion of independence is not as strong as other commentators have thought, and second, answering these questions requires antecedent commitments about the nature and features of possible worlds, commitments which are not settled directly by World-Apart.

²See, e.g., Messina and Rutherford (2009) and Cover and O'Leary-Hawthorne (1999).

³The question whether Leibniz was committed to World-Apart prior to 1686 will be left aside for now. Note, however, that the phrase "monde à part" occurs as early as 1679. See A.VI.iv.2235, -2270.

2 World-Apart in the *Discourse on Metaphysics* (1686)

In the *Discourse on Metaphysics*, Leibniz presents World-Apart as a consequence of his theory of substance. Furthermore, already in this text, World-Apart is not a one-dimensional commitment, but encompasses a variety of different, although clearly related, claims. In particular, World-Apart expresses a cluster of ways in which each substance is independent of all the others except God. Before I turn to the *Discourse* itself, here is a preliminary delineation of the different types of independence I will consider (both in the *Discourse* and in the other texts):

Causal Independence: every (created) substance is causally independent of all the others, i.e., the states of any substance do not require either the existence or the causal activity of any other substances except God.

Ontological Independence: every (created) substance is ontologically independent of all the others, i.e. the existence of any substance does not require the existence of any other substances except God.

Phenomenal Independence: every (created) substance is phenomenally independent of all the others, i.e. the truth of a substance's phenomena (roughly, what it sees) does not require the existence of any other substances except God.⁴

I will refine these to some extent below, but these are essentially the kinds of independence that, in my view, are involved in World-Apart.

There is a second dimension of variation that I will also track in the discussion below. Insofar as World-Apart has been brought to bear on Leibniz's modal commitments, it is crucial to assess just how strong these kinds of independence are. In particular, I will make the following distinction, which cuts across the kinds of independence elaborated above:

Basic Independence: A is independent of B just in case the existence of A does not require the existence of B.

Strict (or Logical) Independence: A is independent of B just in case the existence of A neither requires nor excludes the existence of B.

The difference is, perhaps, already clear, but here are two examples, purely for the sake of illustration. An example of strict independence is the way in which the Continuum Hypothesis is independent of ZFC set theory; assuming ZFC set theory is consistent, either the Continuum Hypothesis or its negation can be added without loss of consistency. In other words, ZFC neither requires nor excludes the Continuum Hypothesis. An example of basic independence (but not strict) is the way in which Judas who sins is independent of Judas who does not sin; the existence of the former clearly does not require the existence of the latter but, at least in Leibniz's ontology, the existence of Judas (sinner) does appear to exclude the existence of Judas (non-sinner). On the view I will develop below, it is fairly straightforward to attribute basic versions of causal, phenomenal, and ontological independence to Leibniz; however, based on the textual evidence, it is far from clear that Leibniz also means to assert the strict versions. As we will see, however, many of the applications of

⁴Thanks to Kristin Primus for suggesting the term "Causal Independence, Phenomenal Independence and Ontological Independence".

World-Apart to questions in Leibniz's modal metaphysics rely on interpreting the relevant notion of independence as strict independence.

Turning to the *Discourse*, we will see that each general kind of independence is represented to some degree, although causal and phenomenal independence are clearly emphasized. Ontological independence will be articulated more explicitly in Leibniz's later works.

When Leibniz introduces World-Apart in the *Discourse*, he claims that it follows from his theory of substance. In particular, it follows from his complete-concept characterization of substance. According to Leibniz in DM §8:

[...] the nature of an individual substance or of a complete being is to have a notion so complete that it is sufficient to contain and to allow us to deduce from it all the predicates of the subject to which this notion is attributed. [A.VI.iv.1540/AG.41]

Already in the characterization of substance we see the seeds of a certain kind of independence: all the predicates that pertain to a given substance are contained in (or deducible from) its complete concept.⁵ A few lines later, Leibniz flags some "notable paradoxes" that follow from his characterization of substance, and elaborates the way in which each substance is independent. He writes,

[e]very substance is like a complete world [*un monde entier*] and like a mirror of God or of the whole universe, which each one expresses in its own way, somewhat as the same city is variously represented depending upon the different positions from which it is viewed.... For it expresses, however confusedly, everything that happens in the universe, whether past, present, or future [...] [A.VI.iv.1542/AG.42]

In Leibniz's view, then, it follows from the complete-concept characterization of substance that each substance has a certain point of view on the entire universe (past, present, and future) and expresses the entire universe (past, present, and future) from that point of view.⁶ The view that each substance expresses the entire universe from its particular point of view can be called "universal expression." This gives us the sense (or at least part of it) in which every substance is a *world*: it expresses—or mirrors—the entire universe from its own point of view. But in what sense is it a world *apart*?

In DM §14, Leibniz completes the picture:

[...] each substance is like a world apart [*Monde à part*], independent of all other things, except for God; thus all our phenomena, that is, all the things that can ever happen to us, are only consequences of our being. [A.VI.iv.1550/AG.47; emphasis added]⁷

⁵There is some controversy surrounding just what is contained in the complete concept of a substance and what is deducible from the complete concept, some commentators argue that *deducible from* can also refer to independently specifiable features of the world, such as the laws of nature. For discussion, see Sleight (1990), 72 ff. The basic type of independence articulated by the complete-concept characterization might be called "semantic independence." I will not develop this notion directly, since I think of it as a weaker form of phenomenal independence.

⁶Expression is a very general notion for Leibniz. See, e.g., A.II.ii.240/LA.144: "One thing expresses another (in my terminology) when there exists a constant and fixed relationship between what can be said of one and of the other."

⁷See also A.II.ii.81/LA.51.

The kind of independence articulated in this formulation of World-Apart is causal: everything that can ever happen to us is only a consequence of "our being." In other words, our causal activity and the states that result from it move along without any influx from the rest of the created world. Notice that, in this passage, Leibniz describes each substance as a world apart, even though the world in fact contains lots of other substances—there is no mention here of the possibility that other substances do not exist. This is because (at least in part) causal independence is one feature of Leibniz's commitment to pre-established harmony. I will discuss this further below, but it is worth noting here that according to pre-established harmony, not only is it true that the causal activity of one substance does not require the activity of any others, it is in fact unintelligible that one substance, strictly speaking, causally affects another.

This prompts a refinement to the formulation of causal independence given above. As formulated, causal independence could be satisfied so long as a substance continues to act (in some way or other) even if no other substances exist. However, the causal independence articulated in DM §14 is somewhat stronger. Substances are not only causally independent in the sense that they will carry on with some causal activity or other in the absence of other substances; they are causally independent in the sense that they will carry on with *exactly the same* causal activity even if no other substances exist. Call the latter, stronger type of causal independence "causal isolation":

Causal Isolation: every (created) substance is causally isolated from all the others, i.e. the specific states of each substance do not require either the existence or the causal activity of any other substances except God.

This variation is worth formulating explicitly for a couple of reasons. First, it highlights that the causal activity of a substance is fully determined by that substance alone (its *being*). Second, it opens the door to (though it does not strictly entail) the possibility that the states of different substances do not conform to one another.⁸

For example, consider two different scenarios containing only two substances: (1) Othello and (2) Desdemona. Suppose, *first*, that Othello's states depict a world in which he loves Desdemona, and Desdemona's states depict a world in which she is loved by Othello. It is clear from DM §14 that Othello's phenomena come from only his being such that he would represent a world in which he loves Desdemona even if Desdemona did not exist, i.e. Othello's representation of Desdemona, whom he loves, does not require Desdemona's existence. Suppose, *second*, that Othello remains the same, but Desdemona's states now depict a world in which she is not loved by Othello. Is this scenario possible? The causal isolation of substances may

⁸As I will discuss below, it is not clear whether substances that do not conform to each other can be properly characterized as occupying the same world. See, e.g., the following text: "God could have given each substance its own phenomena, independent of all others; but in so doing he would have made as many unconnected worlds, so to speak, as there are substances [...] (*Histoire des ouvrages des savants*, July 1698, 333/WF.81). I will consider this remark (as well as other remarks from the same text) further below. There is some textual basis for thinking that Leibniz explicitly allows for God to create multiple different worlds along these lines. See, e.g., A.VI.iii.511–512/DSR.65–7. For discussion, see Griffin (2013), 104.

create room for failures of conformity such as this one because it locates the ground for all phenomena of a substance in that substance alone.⁹ Though the DM §14 text does not itself cede that the scenario I have described is a legitimate possibility, it opens the door to this scenario by making it clear that Othello's representations do not causally depend on anything but Othello.

Making a clear case that the scenario I have described is a legitimate possibility would involve adding a further condition to the formulation of causal isolation I have given above:

Strict Causal Isolation: every (created) substance is causally isolated from all the others, i.e. the states of each substance do not require and do not exclude either the existence or causal activity of any other substances except God.

What strict causal isolation adds (that the other formulations do not provide) is the condition that nothing going on around a substance is connected in any way to the states of that substance. On this view, not only can external reality fail to live up to my representations of it, but there can be a complete misalignment between my states and the external world. If this is right, then failures of conformity such as the one considered above—i.e. utter misalignments—could become legitimate possibilities. Although the textual evidence does not state strict causal isolation explicitly, it is perhaps suggested by the claim that “all our phenomena, that is, all the things that can ever happen to us, are only consequences of our being” (DM §14).

One hesitation worth noting is that moving from basic to strict causal isolation seems to require considerations beyond merely causal ones. In particular, it requires certain views about the harmony between substances and whether that harmony can or cannot be thwarted. In other words, although causal isolation entails that *if there were a misalignment between external things and a substance's states, this would have no causal effect on those states*, there is nothing about causal isolation itself that rules out that the antecedent is a *per impossibile* condition. As such, it is difficult to see how strict causal isolation could follow from the kind of causal independence involved in World-Apart.

Leibniz also introduces phenomenal independence in DM §14. Not only are a substance's phenomena unaffected by the nonexistence of other substances, the *truth* of those phenomena is unaffected as well. He writes,

And since these phenomena maintain a certain order in conformity with our nature or, so to speak, in conformity with the world which is in us, an order which enables us to make useful observations to regulate our conduct, observations justified by the success of future phenomena, an order which thus allows us often to judge the future from the past without error, this would be sufficient to enable us to say that these phenomena are true without bothering with whether they are outside us and whether others also perceive them. [A. VI.iv.1550/AG.47]

⁹There is controversy about whether so-called relational predicates can really be included in the concepts of substances. For arguments against, see, e.g., Cover and O'Leary-Hawthorne (1999), 96 and 132. For arguments in favor, see, e.g., Chieff (chapter “Compossibility and Co-possibility” in this volume). The example is purely for the purpose of illustration and is not meant to commit to one side or the other of this question.

This is a rich passage and warrants a great deal more comment than I can give it here. I want to highlight that in this passage, Leibniz aligns the *truth* of our phenomena, i.e. our representations of the world, with conformity, but not with conformity to an external reality. Instead, Leibniz is interested in conformity to our nature, i.e. “the world which is in us.”¹⁰

Something like this is clearly intimated by Leibniz's complete-concept characterization of substance. If each substance has a concept so complete that every predicate that pertains to it is either contained in or deducible from its concept, it is no surprise that truths about that substance would not require the existence of any other substances. But DM §14 goes beyond this to claim that truths about the entire world as they are represented by an individual substance are independent of the existence of any of the substances represented. Here, then, we have a clear example of phenomenal independence.

So a substance contains the ground both of truths about itself and truths about the rest of the world (or, at least, its representations of the rest of the world).¹¹ It is worth asking, as we did above, whether phenomena are also independent in the strict sense, i.e. that they would be true even if there were a misalignment between a substance's phenomena and external things, rather than simply a failure of some (or all) of the things represented to exist. This question is difficult to answer definitively, but it does not seem obvious that if there were an utter misalignment a substance's phenomena would still be true.

It is worth pursuing the notion of phenomenal independence a little further. Earlier in DM §14, Leibniz claims that although our perceptions are always true, our judgments may still be mistaken:

Since God's view is always true [veritable], our perceptions are always true; it is our judgments, which come from ourselves, that deceive us. [A. VI.iv.1550/AG.47]

This remark might seem to weaken the sense of phenomenal independence. Consider a scenario in which a substance represents an entire world when in fact nothing external exists. Perhaps in this scenario, if we judge that there are substances answering to our phenomena, we will be mistaken, i.e. our phenomena will deceive us. This might diminish the strength of phenomenal independence, since it suggests that something like *user error* can undermine the truth of our phenomena.

¹⁰This has interesting connections with things Leibniz says elsewhere concerning the reality of phenomena, matter and motion in particular. See, e.g. GP.VII.320/L.364; GP.II.270/L.537. I will discuss this to some extent below.

¹¹Despite the phenomenal independence asserted by World-Apart, Leibniz is clear that, on his view, there is good reason to think that other substances do exist, answering to our representations of them. DM §14 continues: “Nevertheless, it is very true that the perceptions or expressions of all substances mutually correspond in such a way that each one, carefully following certain reasons or laws it has observed, coincides with others doing the same [...]” (A. VI.iv.1550/AG.47). This remark opens questions concerning the modal status of the existence of members of the actual world and will be left aside until the next section.

Consider, along these lines, the following passage from "On the Method of Distinguishing Real from Imaginary Phenomena" written sometime between 1683 and 1686:

In the first place, I judge without proof, from a simple perception or experience, that those things exist of which I am conscious within me. These are, first, *myself* who am thinking of a variety of things and then, the varied *phenomena* or appearances which exist in my mind. Since both of these namely are perceived immediately by the mind without the intervention of anything else, they can be accepted without question, and it is exactly as certain that there exists in my mind the appearance of a golden mountain or of a centaur when I dream of these, as it is that I who am dreaming exist, for both are included in the one fact that it is certain that a centaur appears to me. [A.VI.iv.1498/L.363]

Here Leibniz claims that it is certain that varied phenomena exist in my mind. This, however, is not the same as claiming that those phenomena are true. This presents reason to worry that phenomenal independence should be understood to mean simply that some phenomena or other exist, while remaining silent about the truth of those phenomena.

But later on in the same work, Leibniz connects the internal features of phenomena to their reality, suggesting that we can say that the phenomena are real even if nothing else exists: "We conclude it [i.e. that a phenomenon is real] from the phenomenon itself if it is vivid, complex, and internally coherent" (A.VI.iv.1500/L.363). He later adds that "the most powerful criterion of the reality of phenomena, sufficient even by itself, is success in predicting future phenomena from past and present ones [...]" (A.VI.iv.1501/L.364). This suggests a stronger claim than simply that I have certain phenomena; it suggests that there is some reality in phenomena independent of whether anything external exists, since this reality is based on certain discernible features of the phenomena themselves, not on whether the phenomena correspond to anything external. Leibniz concludes this line of thought as follows:

Indeed even if this whole life were said to be only a dream, and the visible world only a phantasm, I should call this dream of this phantasm real enough if we were never deceived by it when we make good use of reason. [A.VI.iv.1502/L.364]

This is some indication that the original formulation of phenomenal independence is the right one.

But what does it mean to be *real enough*? Leibniz explains that the internal features of phenomena give us good reason to think that the phenomena are real, but they do not give us metaphysical certainty that anything external to us exists:

We must admit it to be true that the criteria for real phenomena thus far offered, even when taken together, are not demonstrative, even though they have the greatest probability; or to speak popularly, that they provide a moral certainty but do not establish a metaphysical certainty, so that to affirm the contrary would involve a contradiction. [A.VI.iv.1502/L.364]

In light of this, what should we make of phenomenal independence? On the one hand, the reality of phenomena is construed in terms of features internal to the phenomena. On the other hand, the reality of our phenomena appears to be only probable.

Let me add one final complication. In certain texts (from some years after this text), the reality of phenomena is construed as the "harmony of perceivers with

themselves (at different times) and with other perceivers" (GP.II.270). Phenomenal independence states that phenomena are true whether or not any other perceivers exist. If harmony with other perceivers is required for the reality of phenomena, how can Leibniz assert in DM §14 that no other perceivers are needed? Further, what if, as we asked above, other perceivers actually see different things? In light of these questions, should phenomenal independence be removed from the formulation of World-Apart?

One way to reconcile this is to distinguish between the *truth* and the *reality* of phenomena. Recall the text from above:

Since God's view is always true [*véritable*], our perceptions are always true; it is our judgments, which come from ourselves, that deceive us. [A.VI.iv.1550/AG.47]

This strongly indicates that the *truth* of perceptions is secure; it is our judgments about the conformity of those perceptions to anything outside of us—i.e. about their *reality*—that is susceptible to error.¹² Although phenomena can be true on the basis of their conformity with our natures (i.e., "the world which is in us"), their reality ultimately consists in their conformity with external things.¹³ Harmony with ourselves and with others is a *mark* of the reality of phenomena. So long as we look for these marks of reality, we will not be epistemically negligent.¹⁴ But harmony is not sufficient on its own to establish the reality of phenomena, not if we want anything beyond probability. In fact, in "On the Method of Distinguishing Real from Imaginary Phenomena," Leibniz denies that we can ever achieve metaphysical certainty that our phenomena correspond to external things.¹⁵ So it is no surprise that internal features of our phenomena do not establish this.

This approach allows for the claim that a substance's phenomena are true even when its representations fail to correspond to external things. Once again, it is also worth asking whether this suggests that even if there were an utter misalignment between my phenomena and external things, my phenomena could be true in the sense defined. Perhaps, then, we should consider the following variant of phenomenal independence:

¹² As we will see when we turn to the letters to Des Bosses, Leibniz will later claim that reasonable judgments made on the basis of true phenomena will not be erroneous even if nothing external exists.

¹³ Leibniz sometimes contrasts "true phenomena" with substances. See, e.g., the following passage from "Primary Truths": "Extension and motion, as well as bodies themselves (insofar as only motion and extension are placed in bodies) are not substances, but true phenomena [*phaenomena vera*], like rainbows and parhelia" (A.VI.iv.1648/AG.34). This use of "true phenomena" is connected to Leibniz's notion of well-founded phenomena; it is ultimately an expression of the *reality* of phenomena, even though Leibniz uses the term "vera" here.

¹⁴ I will return to this question when I consider Leibniz's correspondence with Des Bosses in Sect. 4.

¹⁵ Thus by no argument can it be demonstrated absolutely that bodies exist, nor is there anything to prevent certain well-ordered dreams from being the objects of our mind, which we judge to be true and which, because of their accord with each other, are equivalent to truth so far as practice is concerned" (A.VI.iv.1502/L.364).

Strict Phenomenal Independence: every (created) substance is phenomenally independent of all the others, i.e., the truth of a substance's phenomena does not require and does not exclude the existence or phenomena of any other substances except God.

Though suggestive, the texts stop short of asserting the strict version of phenomenal independence. Although Leibniz is clearly considering cases where there is a lack of conformity between my phenomena and external things, he does not explicitly consider cases of misalignment.

A plausible explanation for why we can never achieve metaphysical certainty concerning the reality of our phenomena is that it is always possible that nothing external exists. So let me conclude this section by asking: where is ontological independence in the *Discourse*? The closest that Leibniz comes to asserting ontological independence is in DM §32:

We also see that every substance has a perfect spontaneity (which becomes freedom in intelligent substances), that everything that happens to it is a consequence of its idea or of its being, and that nothing determines it, except God alone. And that is why a person of very exalted mind, revered for her saintliness, was in the habit of saying that the soul must often think as if there were nothing but God and itself in the world. [A VI.iv.1581/AG.64]

There is no direct statement in this passage that one substance can exist without any other substances existing. But this is certainly *intimated* by the remark that we must often think of substances (in particular, the soul) as if no other substances exist (except God).

Although Leibniz does not explicitly claim that substances are ontologically independent of one another, there is some reason to think that ontological independence is entailed by the nature of either the causal or phenomenal independence at stake (or both). As I have formulated it, causal isolation states that a substance will do what it will do no matter which of the substances it represents actually exist. This is consistent with the possibility that nothing is going on around it, i.e. that no other substances exist, even if it does not state this explicitly. Similarly, phenomenal independence states that a substance's representations are true whether or not they correspond to anything outside of the substance. Causal and phenomenal independence, then, state that a substance will continue to do the same things and have true phenomena, respectively, without other substances existing. These two types of independence appear to involve the scenario in which a substance continues to exist without other substances existing. From this discussion alone, however, it is not yet clear whether this scenario is truly possible or merely used for the sake of illustration. I will consider this question directly in the next section. In any case, although it is not formulated explicitly, ontological independence is in the background of the *Discourse* presentation of World-Apart.

To sum up, in the *Discourse*, two types of independence are found explicitly—causal and phenomenal—and a third type is found implicitly—ontological. Furthermore, all three types of independence clearly fall within the scope of World-Apart. When we turn to Leibniz's later work, we will find further refinements of the sense in which substances are ontologically independent of one another, but we will also see that both causal and phenomenal independence continue to figure in

Leibniz's understanding of World-Apart in much the same way as they do in the *Discourse*.

3 World-Apart in the *New System* (1695) and Related Texts

While in the *Discourse* Leibniz states that World-Apart follows from the complete-concept characterization of substance, in the *New System*, World-Apart is more specifically connected to Leibniz's system of pre-established harmony. Pre-established harmony is presented as the view that

God originally created the soul (and any other real unity) in such a way that everything must arise for it from its own depths, through a perfect *spontaneity* relative to itself, and yet with a perfect *conformity* relative to external things. [GP.IV.484/AG.143]

So pre-established harmony can be construed as having two main components:

Spontaneity: Everything that happens to a substance arises from its own depths. That is, for any state, x , of a substance, s , the causal ancestry of x contains only states of s .

Conformity: The states of a substance *agree* with external things. That is, for any state, y , of a substance, there is a corresponding state, y^* , of external things, such that y and y^* agree with one another, though they have no causal connection.

Based on these two components of pre-established harmony, Leibniz provides a formulation of World-Apart:

This is what makes every substance represent the whole universe exactly and in its own way, from a certain point of view, and makes the perceptions or expressions of external things occur in the soul at a given time, in virtue of its own laws, as if in a world apart, and as if there existed only God and itself (to make use of the manner of speaking used by a certain person of great spiritual elevation whose piety is renowned). [GP.IV.484/AG.143]

Here, World-Apart seems to incorporate both spontaneity and conformity. Not only is the soul the source of all its perceptions, but those perceptions occur "at a given time"; in fact, they occur at just the right time in order to conform to, or agree with, external things (or, as Leibniz says a few lines earlier, they "follow upon external beings").

The operative type of independence here is surely causal independence. However, Leibniz's phrase "as if there existed only God and itself" suggests (but only suggests) ontological independence as well. In fact, the connection between World-Apart and *conformity* might rule out the ontological independence of substances. If conformity is not conformity without external things to conform to, then this would create some difficulty for the ontological independence of substances. We should therefore ask: does being a world apart require the existence of external things? If so, does this undermine the ontological independence of substances?

In fact, I think that the ontological independence of substances is not ruled out by the apparent connection between conformity and World-Apart. To see this, we can distinguish two commitments that are involved in conformity, but not distinguished

in the text above. These commitments are universal perception and universal accommodation:

Universal Perception: Every (created) substance perceives or represents the entire world.¹⁶

Universal Accommodation: Every (created) substance accommodates, agrees with, or harmonizes with the entire world.¹⁷

Some might argue that universal perception and universal accommodation stand or fall together, so to speak. However, I think that based on the causal and phenomenal independence of substances, a case can be made that these two commitments come apart.¹⁸ A substance will perceive a certain world in virtue of its own nature (or "the world which is in us"), and it will do so even if nothing outside exists. In other words, a substance will perceive a world, but this representation need not line up with what is really going on. So there can be failures of accommodation. This can happen in two general ways: first, the external things perceived by a substance could simply fail to exist, and second, different external things (i.e. things not perceived by the substance) could exist instead. And so long as there can be failures of accommodation in either of these ways, World-Apart can stand alongside ontological independence.¹⁹

A page or so after the previous text, Leibniz provides another formulation of World-Apart. He writes,

[...] in rigorously metaphysical language, we have a perfect independence relative to the influence of every other creature. [...] Since every mind is like a world apart, self-sufficient, independent of any other creature, containing infinity, and expressing the universe, it is as durable, subsistent, and absolute as the universe of creatures itself. [GP.IV.485/AG.144]

Leibniz here asserts the "perfect independence" of substances, but, importantly, what substances are independent of is the *influence* of all other created substances. So, as above, the emphasis is on causal independence. Such a strong phrase might incline us to think that what Leibniz means to assert is something like *strict* causal independence as I have defined it above. However, I do not think that Leibniz's notion of perfect independence obviously matches up with my notion of strict independence.

¹⁶I use "universal perception" to signal a difference between this commitment and Leibniz's view that each substance expresses the entire world. Expression proper would incorporate both universal perception and universal accommodation. This issue is, however, a bit complicated and cannot be spelled out fully here. Thanks to Laura Herrera Castillo for discussion of this point.

¹⁷For development of a similar distinction, see Sleight (1990), 176 ff.

¹⁸Not all commentators think that these commitments come apart. See, e.g., Rescher (1979), 49–50. I will also discuss this in Sect. 5.

¹⁹Universal accommodation could be made consistent with ontological independence, if formulated as follows: every (created) substance accommodates, agrees with, or harmonizes with all other existing substances. Given this formulation, a substance need not accommodate a specific collection of other substances, but could simply accommodate whatever other substances happen to exist; thus, it would not require the existence of any specific others. But this would depart from Leibniz's view.

As in the *Discourse*, both formulations of World-Apart in the *New System* highlight the causal independence (and causal isolation) of substances from one another: a substance will do what it will do no matter whether any external things exist. As before, the ontological independence of substances is not formulated explicitly, but left in the background. So far, substances are being characterized as worlds apart even though a lot of other substances exist. However, what is particularly useful about the *New System* formulation of World-Apart is that it engenders criticism from Pierre Bayle, and this forces Leibniz to explicitly formulate the type of ontological independence at stake.²⁰

Both in DM §32 and *New System*, Leibniz claims that a substance can be thought of as if there existed only God and that substance:

This is what makes every substance represent the whole universe exactly and in its own way, from a certain point of view, and makes the perceptions or expressions of external things occur in the soul at a given time, in virtue of its own laws, as if in a world apart, and as if there existed only God and itself [...] [*New System*; GP.IV.484/AG.143; emphasis added]

We also see that every substance has a perfect spontaneity (which becomes freedom in intelligent substances), that everything that happens to it is a consequence of its idea or of its being, and that nothing determines it, except God alone. And that is why a person of very exalted mind, revered for her saintliness, was in the habit of saying that the soul must often think as if there were nothing but God and itself in the world. [DM §32/A.VI.iv.158/AG.64; emphasis added]

This points at a kind of ontological independence involved in World-Apart. It also suggests a scenario in which only a single created substance exists. Let us call the scenario in which only a single created substance exists the "World-Apart Scenario." Though these texts suggest the World-Apart Scenario, they do not claim that it is possible. Further, Leibniz's use of the qualifier "as if" makes it unclear to what extent he is considering the scenario as possible and to what extent he is using it merely as a heuristic or illustrative device.²¹ If it is merely a device, and not in some sense possible, then it would no longer be obvious that World-Apart involves ontological independence, despite the fact that causal and phenomenal independence, as I have formulated them, might involve it in some way.

In some unpublished comments in response to Bayle's criticism, Leibniz clarifies his view in a way that initially seems to support the suggestion that the World-Apart Scenario is merely an illustrative or heuristic device. Referring to the World-Apart Scenario, Leibniz writes, "I meant this only as a fiction [*fiction*], which is not compatible [*convenable*] with the order of things but which might help make my thought more intelligible" (GP.IV.530/WF.76). This use of the term "fiction" is telling, not only because of its usual meaning, but also because of how Leibniz uses it in other contexts.

²⁰For Bayle's criticism, see note H to the article "Rotarius" in Bayle's *Dictionnaire Historique et Critique* I. 966–7/WF.72–5).

²¹The passage from the *New System* continues to characterize the World-Apart Scenario as a "manner of speaking" (GP.IV.484/AG.143).

Another example of Leibniz's use of "fiction" occurs in the context of his philosophy of mathematics. Leibniz explicitly rejects infinite numbers, and he does so on the basis that the very notion of an infinite number is contradictory. In the *New Essays* he writes, "[...] it is easy to demonstrate that there is no infinite number, nor any infinite line or other infinite quantity [...]" (A.VI.vi.157/RB.157). It is clear that Leibniz understands this to mean that there is simply nothing answering to the designation "infinite number" or "infinite quantity."²² If there are no infinite quantities, then how do we frame thoughts about them as we appear to be able to do in certain cases, e.g., when thinking of the sums of infinite series?²³ According to Leibniz, it is impossible to conceive infinite collections as quantities "except through a fiction of the mind [*fictionem mentis*]" (GP.II.314/LR.53). Though we cannot truly conceive infinite quantities, we can, effectively, fabricate a thought of an infinite quantity by means of a certain linguistic construction, even though the phrases "infinite number" and "infinite quantity" do not track anything.²⁴ In this case, it is clear that by "fiction of the mind" Leibniz means to say that we are, in a sense, thinking about something strictly impossible. We are fabricating thoughts in order that it may help us to do certain calculations or to think about other, related things. Is it likely that Leibniz is using "fiction" in the same sense in his reply to Bayle?

Although this connection is suggestive, it is not clear that the term "fiction" has the same sense in Leibniz's comments on Bayle. Later on in the comments, Leibniz writes, "it is clear that this pre-established harmony removes such a fiction: it is metaphysically possible, but it doesn't accord with the facts and their explanations" (GP.IV.530/WF.76). Here Leibniz claims that the fiction—i.e. the World-Apart Scenario—tracks something that is metaphysically possible but that doesn't accord with the way things are. What does "metaphysically possible" mean here? In the published version of Leibniz's reply to Bayle, he provides further indication:

[...] when I said that the soul would still feel all that it feels now even if there were only it and God in the world, I was only employing a fiction. In order to show that the feelings of the soul are only a consequence of what is already within it, I was imagining something which could never happen naturally. (*Histoire des Ouvrages des Savants*, July 1698, 330/WF.79)

So rather than using the term "fiction" to capture the strict impossibility of something, Leibniz is using it as a stand in for something that could never happen naturally. "Metaphysical possibility," then, seems to mean possible, but not natural. From these texts, we can conclude that the World-Apart Scenario is more than a mere heuristic device; it somehow tracks a real sense of possibility. Still, it is not yet clear just what sense it tracks. I will return to this question below. For now, based on the metaphysical possibility of the World-Apart Scenario, we can reformulate onto-logical independence as follows:

²² See, e.g., the following passage from "Infinite Numbers" (1676): "But to say all numbers is to say nothing" (A.VI.iv.502/RA.99).

²³ For Leibniz's treatment of infinite series, see, e.g., A.VI.iv.503/RA.99.

²⁴ For further discussion of the role of mental fictions in the case of infinite number, see Harner (2014), 250 ff.

Ontological Independence: every (created) substance is ontologically independent of all the others, i.e. it is metaphysically possible that one substance exists without any other substances existing except God.²⁵

It should be noted that from his reply to Bayle, it is clear that Leibniz is using the ontological independence of substances to illustrate the causal independence, i.e. it is being used to "show that the feelings of the soul are only a consequence of what is already within it." So ontological independence is not Leibniz's main concern. It would be no surprise, then, if he has not worked out the specific modalities involved.

Nonetheless, it is tempting to project Leibniz's familiar distinction between absolute and hypothetical necessity onto the notion of being metaphysically possible, but not natural. When we turn to the correspondence with Des Bosses, there will be further reason to consider this alignment. But notice that Leibniz does not contrast metaphysical with natural *possibility*. Rather he claims that the World-Apart Scenario is not consistent with the facts, that it could never happen naturally. In other contexts, when Leibniz claims that something cannot happen naturally, what he means is that it would be unintelligible given the natures of the things involved.²⁶ What would that mean in this case?

We can gain some insight (though not definitive, to be sure) into this question by appealing to the notion of phenomenal independence as I have characterized it above. Perhaps the reason that the World-Apart Scenario would not be natural is that, even if nothing external existed, our phenomena would still be *true* and have all the marks of *reality*. In such a case, Leibniz might say that it would be unintelligible that nothing external exists. Although this departs from Leibniz's standard appeal to the intelligibility of explanations, it would mean something like this: given the nature of our phenomena it would be in principle impossible for us to know that nothing external existed. As such, there would be a certain type of unintelligibility involved in the World-Apart Scenario. I will return to this when I turn to Leibniz's correspondence with Des Bosses in the next section.

In the *New System*, then, we find much the same set of claims involved in World-Apart as we found in the *Discourse*. The causal independence of substances gets the most emphasis. What becomes explicit in the *New System* is that substances are

²⁵ I will consider below the connection between Leibniz's use of "metaphysical possibility" here and his familiar distinction between absolute and hypothetical necessity.

²⁶ This has been designated as the "Principle of Intelligibility." For further discussion, see Rutherford (1992). Rutherford characterizes the "Principle of Intelligibility" as the commitment that everything that happens can be given a *natural* explanation. For examples of this in Leibniz, see, e.g., the following text from the same reply to Bayle regarding miracles: "It isn't sufficient to say that God has made a general law, for in addition to the decree there has also to be a natural way of carrying it out. It is necessary, that is, that what happens should be explicable in terms of the God-given nature of things" (*Histoire des Ouvrages des Savants*, July 1698, 336/WF.82). See also the following text from the Preface to the *New Essays*, where Leibniz claims that thinking matter would be unintelligible given the nature of matter: "Whenever we find some quality in a subject, we ought to believe that if we understood the nature of both the subject and the quality we would conceive how the quality could arise from it. So within the order of nature (miracles apart) it is not at God's arbitrary discretion to attach this or that quality haphazardly to substances. He will never give them any which are not natural to them, that is, which cannot arise from their nature as explicable modifications" (A.VI.vi.65/RB.65).

ontologically independent in the sense that it is metaphysically possible that a substance exists without any other substances existing. Phenomenal independence has not appeared explicitly, but as we will see, it returns in Leibniz's letters to Des Bosses.

4 World-Apart in the Leibniz-Des Bosses Correspondence (1706–1716)

In the letters to Des Bosses, Leibniz's presentation of World-Apart finally places the modal status of the World-Apart Scenario within the framework of Leibniz's familiar distinction between absolute and hypothetical necessity. Furthermore, Leibniz once again develops the phenomenal independence of substance, and provides interesting additions that speak to some of the concerns I formulated when discussing phenomenal independence in Sect. 2.

World-Apart—in particular the ontological independence involved—first appears in the context of a discussion of the actions (or activity) of substances. The question being considered is: what effect would the removal of all other substances have on the actions of an individual substance? Leibniz writes to Des Bosses,

You say that one substance, if we should suppose one alone, would have infinite actions at the same time, since nothing impedes it. I reply that even when it is impeded, it exerts infinite actions at the same time; for, as I have already said, no impediment destroys an action completely. But it should not be thought on this account that, since it exerts infinite actions, it exerts every action whatsoever and every action equally, for each and every substance is of a determinate nature. However, that there should exist one substance alone from among these is something that does not agree with divine wisdom; thus it does not happen, although it could happen. [GP.II.307/LR.37]

As in the *New System*, Leibniz suggests the possibility of the World-Apart Scenario in the context of a discussion about the causal activity of substances.²⁷

As before, formulating the ontological independence of substances is not Leibniz's main concern. (In fact, he seems to be cautioning Des Bosses not to take the World-Apart Scenario too seriously.) Nevertheless, what he says here lines up with what he has said before: one substance could exist on its own, but this will not happen. Notice the absence of technical (modal) terminology in this passage. This is some indication that Leibniz is not here concerned precisely to formulate the sense in which the World-Apart Scenario is possible or to make any explicit claims about possible worlds.

²⁷ Leibniz's remarks might be construed as asserting that the existence of other substances impedes the actions of each one. It is worth highlighting, though perhaps obvious, that this remark is compatible with the causal isolation of substance, since a substance's actions—whether or not they are impeded—flow from the determinate nature of the substance in question. Thus, the impediments are built into that nature and only originate in another substance *ideally*. For Leibniz's discussion of *ideal influence* see, e.g., A.VI.vi.210/RB 210.

Later in the correspondence, Des Bosses raises an objection to Leibniz's system of pre-established harmony that prompts Leibniz to formulate versions of both phenomenal and ontological independence. I will quote the entire passage now, though focus first on the sense of ontological independence. Here is Des Bosses:

If all monads have their perceptions from their own stores, so to speak, and without any physical influence of one on another, and, further, if the perceptions of each monad correspond precisely to all the other monads that God has already created and to their perceptions and the perceptions are regulated by representing them, then God could not have created any of those monads that exist in this way without producing all the others that now exist in the same way. For God can in no way bring it about that the natural perception or representation of monads is mistaken, but it would be mistaken if it presented nonexistent monads as if they existed. (GP.II, 493/LR 335)

Des Bosses is making the argument that in virtue of pre-established harmony, God could not create one monad without creating all the others. So Des Bosses is trying to show that pre-established harmony compromises the ontological independence of substances and this constrains God's power in a particular way. Leibniz's response places the World-Apart Scenario in the framework of his familiar distinction between absolute and hypothetical necessity. Leibniz writes, "he could absolutely, but not hypothetically, because he decided to act always most wisely and most harmoniously" (GP.II.496/LR.337).

Here is a basic formulation of the distinction Leibniz relies on in this passage:

Absolute Necessity: something is absolutely necessary if its negation involves a contradiction.

Hypothetical Necessity: something is hypothetically necessary if it is necessary given God's contingent choices, but not absolutely necessary.²⁸

As we might expect, Leibniz claims that there is no contradiction involved in the World-Apart Scenario. Nevertheless, we can be certain that God would not create only a single substance because this would not accord with divine wisdom. So as before, Leibniz asserts the metaphysical (or absolute) possibility that one substance exists on its own.

It is worth contrasting the basic version of ontological independence we have been working with so far with a strict version:

Strict Ontological Independence: every (created) substance is ontologically independent of all the others, i.e., the existence of any substance neither requires nor excludes the existence of any other substances except God.

This variant is stronger than ontological independence as formulated above. If strict ontological independence is endorsed by Leibniz, then this would entail that, strictly speaking, any substance can exist alongside any other. However, there is no explicit evidence that World-Apart includes a commitment to strict ontological

²⁸ Leibniz's reliance on this distinction is pervasive. For a standard formulation, see, e.g., DM §13 (A.VI.iv.1546–7). Leibniz also presents a theory of contingency in terms of infinite analysis. I will not discuss this view here, but see, e.g., "On Freedom" (A.VI.iv.1653/AG.94).

independence. Notice that Leibniz's reply is intended to block the conclusion that, in virtue of pre-established harmony, the existence of one substance *requires* the existence of all others. He says nothing whatsoever about the further question whether the existence of one substance excludes certain others.

From the texts we have seen, it is clear that Leibniz is committed to the basic ontological independence of substances: the existence of one substance does not require the existence of any others. In other words, it is metaphysically possible that one substance exists on its own. This commitment remains silent about whether or not it is metaphysically possible that any collection of substances whatsoever exists. These considerations will be salient in the next section, since it turns out that it is often taken for granted that the type of ontological independence involved in World-Apart is strict ontological independence.

Despite the metaphysical (or absolute) possibility of the World-Apart Scenario, Leibniz argues that it would be inconsistent with divine wisdom for only a single substance to exist. We should ask: why would the World-Apart Scenario violate divine wisdom? Although the specific aspect of divine wisdom that accounts for this is not provided, there are at least a couple of options: first, it could be that divine wisdom dictates that as many things as possible exist. This is a view Leibniz articulates in other texts.²⁹ As such, failing to create more than one substance might contravene divine wisdom in this sense. It could also be that divine wisdom dictates that when a substance has certain phenomena, it would be a problem if nothing external corresponds to those phenomena. The World-Apart Scenario could also contravene divine wisdom in this sense. But what kind of problem would this be exactly? As we have seen, the phenomenal independence of substance states that a substance's phenomena will still be true, even if nothing external exists. In his reply to Des Bosses' objection, Leibniz formulates a type of phenomenal independence that provides further insight into this question.

In the passage above, Des Bosses cites the fact that monads would be mistaken in their natural perceptions as the reason that God must necessarily create all monads if he creates one. Leibniz's reply provides insight into the sense in which the phenomena of a given substance are independent of the existence of any other substances. He writes,

The response is easy and has already been given: he could do it absolutely, but not hypothetically, because he decided to act always most wisely and most harmoniously. Still, there would be no deception of rational creatures, even if not everything outside of them corresponded exactly to their phenomena, indeed even if nothing did, as if there were just one mind; for everything would come about as if all the other things existed, and this mind, were it acting reasonably, would not invite blame on itself. For this is not to err. [GPII.496/LR.339]

Leibniz's reply to Des Bosses here is reminiscent of DM §14. Leibniz claims that a substance would not be deceived even if not everything outside of it corresponded

²⁹ See, e.g., the post script to Leibniz's fourth letter to Samuel Clarke, where Leibniz applies this consideration to argue against empty space and in favor of the actual subdivision of matter to infinity (GP.VII. 377–8).

to its phenomena (or, in fact, even if nothing outside did). The addition found in this passage is that a substance in this situation—“would not invite blame on itself” because “this is not to err.” This, in my view, bolsters the commitment to phenomenal independence attributed to Leibniz based on DM §14. There is a sense in which a substance's phenomena are not erroneous (i.e. are true) even if they do not correspond to anything external.

As Leibniz sees it, phenomenal independence is compatible with being wrong in judging that phenomena conform to anything external. Thus, phenomenal independence does not entail the reality of what is represented. As such, it is compatible, as we would expect, with ontological independence. He continues,

Nevertheless, it would be no more necessary that the probable judgment it formed of the existence of other creatures be true than it was necessary that the Earth stood still, because with a few exceptions the entire human race once judged it so with good cause. Therefore, it is not out of necessity, but from the wisdom of God, that judgments of the greatest probability, formed after a full examination, are true. [GPII.496/LR.339]

Thus there is a sense in which God's wisdom is committed to creating an entire world such that the best judgments we can make on the basis of our phenomena will line up with the way the world is. Still, Leibniz's view is radical in this respect: had God chosen not to create the rest of the world, we would not thereby be deceived; even if we formed judgments on the basis of our phenomena, we would not be in error so long as we acted reasonably. This suggests an additional refinement to phenomenal independence:

*Phenomenal Independence**: every (created) substance is phenomenally independent of all the others, i.e. both the truth of a substance's phenomena and the truth of judgments a substance forms on the basis of its phenomena (so long as they are formed reasonably) do not require the existence of any other substances except God.³⁰

What this formulation of phenomenal independence adds to the formulation above is that here judgments are explicitly included. This shows that even if nothing external existed, there would be no reasonable way for us to come to this belief. I think that this provides further evidence for my claim that the World-Apart Scenario is non-natural in the sense that even if nothing external existed, it would be in principle impossible for us to determine this. Even the best (i.e. most reasonable) judgments formed in light of our phenomena could not establish the non-existence of external things. In my view, this is, in Leibniz's view, as much behind why God would not create the World-Apart Scenario as a commitment to the plenitude of the created world.

In the Leibniz-Des Bosses correspondence, then, we find the same types of independence connected to World-Apart as in the *Discourse* and the *New System*. Further, although Leibniz places the modal status of the World-Apart Scenario within the framework of his distinction between absolute and hypothetical neces-

³⁰ By “truth of judgments” here, I simply mean judgments not made in error.

sity, he does not seem to be primarily concerned with its modal status. Rather, as before, Leibniz is concerned with the action (or causal activity) of substances, and in service of this task acknowledges the metaphysical possibility of the World-Apart Scenario. I think this is telling. It signals that World-Apart is not, at least not in the first instance, concerned with ontological independence. Furthermore, it is not, primarily at least, a way that Leibniz elaborates his views about possible worlds. Still, there are undeniable connections between World-Apart and Leibniz's modal commitments.

5 World-Apart and Possible Worlds

I have shown that World-Apart involves a variety of claims about the independence of substances. Leibnizian substances, on my view, are independent in at least three general ways: causally, ontologically, and phenomenally. As I mentioned at the outset, World-Apart has appeared in recent discussions of Leibniz's modal metaphysics. In particular, commentators have argued that Leibniz's commitment to World-Apart puts pressure on how we should interpret his views about compossibility and the nature of possible worlds (including what possible worlds there are).³¹ How do the conclusions I have reached above bear on these questions? Though I cannot comprehensively address the connections between World-Apart and Leibniz's modal views, I will engage two particularly salient ones:

- (i) How does World-Apart connect to Leibniz's notion of compossibility?
- (ii) How does World-Apart connect to what possible worlds there are?

In my view, Leibniz's commitment to World-Apart has little impact on either his notion of compossibility or the range of possible worlds. There are two reasons for this: first, I do not think there is strong textual evidence in favor of the strict versions of either causal, ontological, or phenomenal independence, though this is what would be needed to show a direct connection between World-Apart and Leibniz's modal commitments. Second, the way we interpret Leibniz's views about possible worlds relies more on our antecedent commitments about the characteristics of possible worlds than anything particular to World-Apart. To be clear, I do not aim to defend any one interpretation of compossibility over another, but simply to assess the role of World-Apart in making such a determination.³²

A bit about compossibility: according to Leibniz, not everything that is possible actually exists. Were this to be the case, it would have disastrous theological consequences:

³¹ See, e.g., Messina and Rutherford (2009) and Cover and O'Leary-Hawthorne (1999).

³² I will not even be able to present the competing options fully. Broadly, there are three approaches to compossibility in the literature. The logical interpretation (e.g. Mates 1972; Rescher 1979), the lawful interpretation (e.g. Russell 1937; Cover and O'Leary-Hawthorne 1999), and the cosmological interpretation (e.g. Messina and Rutherford 2009).

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.VI.iv.581/DSR.105]

Leibniz's explanation for why all possibles do not exist is that not all possibles are *compossible*. That is, roughly, not all possibles are compatible with each other. Leibniz writes, "[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" (A.VI.iv.581/DSR.105). Insofar as not all possibles are compatible, God cannot create all possibles, but instead must choose some restricted set of possibles to create, while leaving the remaining (sets of) possibles uncreated. God chooses the best set from among all possible sets and this provides both a reason for the existence of the actual world and a reason that God is praiseworthy for his creation of the actual world—the latter is what ensures that Leibniz's God is "a God of the kind in whom the pious believe."³³

However, there remains a great deal of disagreement surrounding just what type of compatibility and incompatibility is at stake in Leibniz's notion of compossibility. Commentators have appealed to World-Apart in an attempt to motivate certain constraints on our understanding of compossibility.

It has been suggested that World-Apart constrains our understanding of the compossibility relation by showing that it must be an extra-logical relation.³⁴ The logical interpretation of compossibility is typically formulated as follows:

Logical Compossibility: Two substances, *S* and *T*, are compossible just in case there is no logical contradiction involved in supposing that *S* exists and *T* exists.³⁵

Commentators have argued that World-Apart undermines the contention that compossibility is a logical relation. This is because, so the argument goes, on the

³³ See also, e.g., GPIII.573/L.662: "[...] not all possibles are compossible. Thus, the universe is only a certain collection of compossibles, and the actual universe is the collection of all existing possibles, 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."

³⁴ For commentators who offer a logical interpretation of the compossibility relation, see, e.g., Hintikka (1972), Mates (1972), Rescher (1979), D'Agostino (1976), and Chieł (chapter "Compossibility and Co-possibility" in this volume). For those who reject the logical interpretation on the basis (at least in part) of World-Apart, see, e.g., Messina and Rutherford (2009), 963–5 and Cover and O'Leary-Hawthorne (1999), 136. While Messina and Rutherford make this point directly, Cover and O'Leary-Hawthorne make it indirectly. (They argue against maximality—each possible world contains all substances compossible with its members—directly on the basis of World-Apart and use this to argue against the logical interpretation.) Cover and O'Leary-Hawthorne argue directly against the logical approach on the grounds that no two substantial concepts can contradict one another because they (the concepts) do not contain relational predicates. See Cover and O'Leary-Hawthorne (1999), 132 and 138.

³⁵ Defenders of the logical approach typically formulate the compossibility relation in terms of the joint existence of two substances. See Mates (1972), 340 and Rescher (1979), 54ff. It could, it seems, be formulated as a relation between merely possible substances.

logical interpretation of compossibility, substances logically exclude all impossible substances and logically require all compossible substances, but this is incompatible with the independence of substances asserted by World-Apart.³⁶ If substances are independent, then there should be nothing preventing God from creating any collection of substances whatsoever. If however, substances logically exclude all impossible substances and logically require all other compossible substances, it appears that God could not create one substance without creating all compossible substances (and failing to create all impossible substances).³⁷ Aside from the restriction this appears to place on God's creative activity, it flatly ignores the possibility of the World-Apart Scenario. As we have seen above, Leibniz straightforwardly and consistently cedes the possibility of one substance existing on its own (well, one substance and God).

But depending on the type of ontological independence that World-Apart asserts, this line of thought may or may not be compelling. To be sure, the possibility of the World-Apart scenario is a problem for the logical interpretation if the existence of one substance logically *requires* the existence of all compossible substances. But is it equally a problem if the existence of one substance *excludes* the existence of certain others? I think that exclusion does not violate the independence involved in World-Apart. Before I develop this suggestion, however, it is worth asking: does the logical interpretation even assert that the existence of one substance requires the existence of all compossible substances?

The answer to this question is not straightforward. Part of the reason for this is that most advocates of the logical interpretation do in fact claim that the existence of one substance logically requires the existence of all compossible substances. Even though most advocates make this claim, it is not obviously an essential part of Logical Compossibility.

One reason that Logical Compossibility is thought to require the existence of all compossible substances is that possible worlds are often taken to be maximal:

Maximality: a world *W* is maximal just in case all substances compossible with the members of *W* are also in *W*.

Maximality might lead to the conclusion that one substance requires all compossible substances. But if so, this requirement will not be a feature of Logical Compossibility itself; rather, it will be a feature of Logical Compossibility together with the maximality of possible worlds. One thing to note, then, is that the question

³⁶ See, e.g., Mates (1972), 341 and Rescher (1979), 17. Although excluding all incompatible possibilities follows from the logical interpretation of compossibility directly, requiring all compatible possibilities does not. Typically, the latter is thought to follow from the logical interpretation combined with a certain understanding of universal expression (each substance expresses all compossible substances) and maximality (each possible world contains all substances compossible with its members). This will be discussed below.

³⁷ McDonough highlights it as a traditional feature of substances that they are *entia in se* and per se (McDonough 2010, 137). He takes this to mean that "no substance per se entails the existence or nonexistence of any other substance" (*ibid.*, 136). I agree that entailing the existence of another would undermine independence; it is not at all clear to me, however, that entailing the nonexistence of another would do so. I will return to this point below.

whether or not World-Apart pulls away from Logical Compossibility is properly located in the commitment to maximality rather than in the characterization of the compossibility relation itself. Is maximality entailed by Logical Compossibility?

The frequent connection between Logical Compossibility and maximality is not accidental. However, in general commentators do not argue that maximality follows from Logical Compossibility directly. Typically, commentators argue that it follows from a strong version of universal perception, which includes (or entails) some version of universal accommodation.³⁸ As I have discussed above, I think that the causal and phenomenal independence asserted by World-Apart disconnect universal perception from universal accommodation. Thus, I do not think there is a compelling argument for maximality along these lines.

In my view, Logical Compossibility on its own does not entail that each substance requires the existence of all compossible substances.³⁹ For now, this insulates it against being straightforwardly undermined by the World-Apart Scenario. However, Logical Compossibility clearly asserts that the existence of one substance logically excludes the existence of all impossible substances. Does this not put it at odds with World-Apart? Various commentators think that it does. They have argued that World-Apart should entail the logical compatibility of any substance with any other.⁴⁰ According to these commentators, if logical compossibility claims that one substance excludes certain others, it will be in tension with World-Apart.

However, I think that this is mistaken. To uphold the view that World-Apart entails the per se compatibility of any two substances, one must read World-Apart as asserting strict ontological independence. As I argued above, it is far from clear that this is Leibniz's view. Although the World-Apart Scenario cedes the possibility of God *failing to create* some (or all) of the substances compossible with a given substance, neither the scenario itself nor Leibniz's discussion of it entails that God could create any other substances whatsoever. On this basis, I see no obvious reason to draw the conclusion that World-Apart is inconsistent with the fact that the existence of one substance logically excludes the existence of certain others.⁴¹ If correct, this creates room to maintain both the logical interpretation of compossibility and World-Apart. If Logical Compossibility asserts only exclusion (not requirement), then perhaps World-Apart does not pull away from Logical Compossibility after all.⁴²

³⁸ For discussion, see Mates (1972), 340–1 and Rescher (1979), 49–50. For discussion (and criticism), see Messina and Rutherford (2009), 964. Mates relies on *Theodicy* 212, while Rescher argues for maximality on the basis of conceptual interconnections between the complete concepts of substances. Messina and Rutherford criticize the commitment to maximality on the grounds that it violates the World-Apart Scenario and that it constrains God's power to create.

³⁹ There may be other reasons to argue that Logical Compossibility needs maximality, perhaps to address certain problems or objections.

⁴⁰ Commentators often distinguish between intrinsic and extrinsic compossibility. Intrinsic compossibility: substances are compossible per se. Extrinsic compossibility: substances are compossible in virtue of certain choices God makes, for example, the selection of certain natural laws. Commentators also frequently claim that World-Apart entails the intrinsic compossibility of any substances whatsoever. See, e.g., Cover and O'Leary-Hawthorne (1999), 137 and McDonough (2010), 137–8.

⁴¹ Thanks to Marleen Rozenmond for helping me to clarify this point.

⁴² A different way to articulate this limited restriction on the ontological independence of substance would be as follows: perhaps the strict ontological independence of substance only applies to sets

This leads us back to the question above: is there reason to think that possible worlds must be maximal?⁴³ Or put differently: can there be a possible world containing only a single substance? If we were to answer this question solely on the basis of Leibniz's commitment to World-Apart, the answer would appear to be "yes, a world containing only a single substance is possible." The ontological independence of substances involved in World-Apart suggests that possible worlds can contain only a single substance, as in the World-Apart Scenario.⁴⁴ However, there are other texts that appear to support the maximality of possible worlds, suggesting that in fact a single substance cannot constitute a possible world.⁴⁵ What can be done to reconcile these commitments? Many commentators simply give up maximality as a necessary feature of possible worlds. As such, they accept that there are many (infinitely many, in fact) possible worlds containing only a single substance.⁴⁶ They claim further that the texts that seem to support the maximality of possible worlds are only concerned with the actual world, not any possible world whatever.⁴⁷ This locates the reasons for the maximality of the actual world at the level of God's free choices, rather than at the level of the nature of possible worlds.

For those who still want to uphold maximality, what is to be done with the World-Apart Scenario? One thing to note is that in all the texts in which Leibniz cedes the possibility of the World-Apart Scenario, the single existing substance still perceives a world populated by infinitely many others. In fact, it is precisely the aim of the World-Apart texts to make this point: a substance will continue to have the same representations even if no external things exist. This means, further, that it is part of the determinate nature of the substance in question to represent a particular world

of compossible substances. That is, within any set of compossibles, the existence of one neither requires nor excludes the existence of any other substances. But this claim cannot be made unrestrictedly about all substances. This also highlights the fact (in my view) that the precise claims made by World-Apart depend on our answers to other, more basic modal questions.

⁴³For development of the view that World-Apart entails a rejection of maximality, see Cover and O'Leary-Hawthorne (2009), 136.

⁴⁴There is some reason to question whether a single substance could constitute a possible world even if God could choose to create only a single substance. For discussion of the distinction between "possible creations" and "possible worlds" see Griffin (2013), 87 and 103.

⁴⁵See, e.g., *Theodicy* §225: "The wisdom of God [...] goes even beyond the finite combinations, it makes of them an infinity of infinities, that is to say, an infinity of possible sequences of the universe, each of which contains an infinity of creatures" (GP.VI.252/H.267). As Sleight (1990), 180 notes, this passage does not strictly entail that all possible worlds contain an infinity of creatures, just that infinitely many of them do. I am inclined to interpret this passage more loosely than Sleight does and take it as some (if not conclusive) evidence in favor of maximality.

⁴⁶Sleight rightly notes that admitting sub-maximal possible worlds gives rise to the problem that the very same substance could be in more than one possible world. For example, I am in the actual world and I would also be in the world containing only me. This threatens to create tension with Leibniz's denial of transworld identity. However, as Sleight also notes, this problem is dulled by the fact that one of the two worlds in which the same substance exists is a proper part of the other. For discussion, see Sleight (1990), 182.

⁴⁷Sleight (1990), 181, Cover and O'Leary-Hawthorne (1999): 136, and Messina and Rutherford (2009), 973. Messina and Rutherford's view is subtle: they argue that anything God chooses to create as a world will be maximal. God could create a less-than-maximal collection of substances, though it would not constitute a world.

(in the case of many of Leibniz's discussions, the world in question is the actual world). So in the World-Apart Scenario, although it is possible that one substance exist on its own, it is not the case that the nature of the remaining substances is conceivable independently of any others—its nature includes representations of a maximal world containing infinitely many other substances. Consequently, one might argue that although the existence of one substance does not require the existence of any others, the *conception* of one substance (in particular, the *complete conception* of it by God) requires the *conception* of all compossible substances. If this is correct, then although World-Apart breaks down the ontological connections between substances, it does not break down the conceptual connections. If we follow this line of reasoning, it would mean that the conception of a single substance always involves the conception of an entire world. Along these lines, one could argue that although World-Apart pulls away from the maximality of possible worlds as created, it does not pull away from the maximality of possible worlds as *conceived*.^{48,49}

This prompts the question: what is the connection between *perceiving a world* and *being a member of a world*? One could argue that a substance is a member of a world in virtue of what it perceives, even if it could be, absolutely speaking, created on its own. On this view, worlds would be individuated not in terms of what God could or couldn't create, but in terms of "general system[s] of phenomena" (DM §14/A.VI.iv.1550).⁵⁰ There are texts suggesting that if God were to create substances with phenomena that did not conform with one another, he would in effect be creating as many worlds as substances. Here is one:

God could have given each substance its own phenomena, independent of all others; but in so doing he would have made as many unconnected worlds, so to speak, as there are substance... (*Histoire des ouvrages des savants*, July 1698, 333/WF 81).

⁴⁸In the *Discourse*, Leibniz holds that substances express all *possibles* not merely all *compossibles* (see DM §29/A VI.iv.1574). For discussion, see Sleight (1990), 173. If this extends to the perceptions and only its world-mates – but it would be difficult to argue that the conception of an individual contains all and only its world-mates – but I see no reason to extend the claim in this way. Mates and Rescher argue that substances express all and only the substances in their world. They argue further that in virtue of expressing all compossibles, all compossibles must exist. I see no need to draw this final conclusion. In my view, it is true that a substance must perceive an entire world, but it does not follow that the world must exist, not, at any rate, if the "must" here is understood as a logical or metaphysical necessity. See also footnote 36.

⁴⁹Commentators have argued that in light of the fact that the concepts of substances contain only simple properties, there is no way to build relational information (e.g. information about other substances) into the concepts of substances. See, e.g., Mates (1972), 351–2 and Cover and O'Leary-Hawthorne (1999), 132. Others have argued that relational properties should be included in the complete concepts of substances. See, e.g., Rescher (1979), 55. Along these lines, it would be nice to be able to answer the following question: could a single substance exist and represent only itself? Or, further is there a possible world with only a single substance in which that substance both perceives and accommodates that world? There is a lack of textual evidence available to address this question; however, my (admittedly speculative) inclination is to say no to both questions. Unfortunately, I cannot develop this any further here.

⁵⁰Some commentators defend the conceptual priority of the notion of a world to the notion of compossibility. See, e.g., Messina and Rutherford (2009), 969 and Wilson (2001), 10. For discussion, see Griffin (2013), 102 ff. Messina and Rutherford, moreover, provide an account of what it means to be a "general system of phenomena": in their view, it is to be part of a spatiotemporal order.

This suggests, though does not strictly entail, that a substance is located in a particular world in virtue of what it represents.

In light of these considerations, it is not clear that World-Apart has any impact on how we answer the question of maximality. Simply in virtue of the fact that God could create only a single substance, it does not follow that there are possible worlds constituted by only a single substance. Therefore, whether or not possible worlds need to be maximal seems to depend more on one's conception of *world* (in particular, what counts as a world) than on anything particular to World-Apart.

This result also implies an answer to our first question: what does World-Apart have to say about compossibility? Recall that I located the tension between World-Apart and Logical Compossibility in the commitment to maximality found among advocates of the logical interpretation. As I have argued, the question whether possible worlds must be maximal is not answered by an appeal to World-Apart. Similarly, I do not think that the question whether or not compossibility can be a logical relation is answered by World-Apart either. If, as the discussion above suggests, it is possible to maintain certain conceptual connections between substances without also asserting ontological connections, then Logical Compossibility need not violate World-Apart. If advocates of the logical interpretation claim that a substance only *excludes* all impossible substances, then they can avoid any obvious conflict with the World-Apart Scenario. Ontological independence, as I have defined it, is compatible with the claim that the existence of one substance logically excludes the existence of other substances, so long as it is ceded that the existence of one does not logically require the existence of any others. Thus, unless there is some reason to attribute the strict ontological independence of substances to Leibniz, it is not clear that Logical Compossibility defies the ontological independence at stake in World-Apart. I conclude, therefore, and perhaps surprisingly, that World-Apart in itself has little impact on Leibniz's modal commitments, at least in the two cases I have considered.

6 Conclusion

I have provided evidence that there are at least three general kinds of independence involved in Leibniz's World-Apart Doctrine. I have also shown that there are interesting variants and refinements of these. Here is a summary of the different types of independence I have considered and my assessment of the evidence for and against:

Type of independence	Endorsed by Leibniz?
Causal:	
Basic causal independence/isolation	Yes
Strict causal independence/isolation	Not clear
Phenomenal:	
Basic phenomenal independence	Yes

Type of independence	Endorsed by Leibniz?
Strict phenomenal Independence	Not clear
Ontological:	
Basic ontological independence	Yes
Strict ontological independence	Not clear

I have argued that each general kind of independence is found in texts ranging from 1686 until 1716. I have also argued that Leibniz's commitment to World-Apart has little impact on Leibniz's modal commitments, at least the ones I have considered: the character of the compossibility relation and the nature and range of possible worlds. This is not to say that World-Apart is not connected to Leibniz's modal metaphysics—of course it is. However, many of the claims commentators make concerning the connections between World-Apart, compossibility, and possible worlds rely on very strong formulations of the independence involved in World-Apart. The texts, however, do not explicitly support such strong formulations. Until further reasons are provided, I conclude that the impact of World-Apart on Leibniz's modal commitments is limited, and therefore World-Apart cannot be straightforwardly used to settle these commitments.

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