
In ‘Two Interpretations of Pre-established Harmony’ Mark Kulstad argues that when miracles are taken into account, it is most likely that Leibniz holds to a version of pre-established harmony a little different from the usual understanding. The two interpretations are these:

**Universal Pre-established Harmony (UPH):** Each created substance, without interacting with other created substance, generates the sequence of all its non-initial states by means of the nature that God has given it, with the resulting states corresponding perfectly with those of all other created substances. (p. 480)

**Limited Pre-established Harmony (LPH):** God has given each created substance a nature capable of generating a sequence of states, without any need of interaction among creatures to assist in the generation; and the sequences so generated by created substances will, miraculous intervention aside, correspond perfectly. (p. 480)

UPH entails internal determinism (the non-initial states of a substance are determined by prior states of that substance). If LPH is correct, then unless they are miracle-free, substances do not exhibit internal determinism. LPH is in line with the view of natures (as not corresponding one to one with the complete concept of an individual) found in Ishiguro; UPH is in line with the view of natures (as corresponding one to one with the complete concept of an individual) found in Woolhouse.

Kulstad offers three arguments for interpreting pre-established harmony in the narrow way. Firstly, LPH, and the narrow view of natures, is supported by Discourse 16, which makes the distinction between a substance’s nature and its complete concept. Secondly, LPH is also supported by considerations of various texts on laws, forces and appetitions, and their relations to natures. These texts often explicitly make an exception for miraculous states: so that not all states of a
substance follow according to the laws, by the force and by the appetitions of a
substance. Thirdly, formulations of pre-established harmony are given by Leibniz
in terms of laws, where these laws must be those which miracles violate, the
"subordinate maxims."

Kulstad does mention some arguments against this interpretation. For example,
against LPH is a quote from First Truths:

[S]peaking with metaphysical rigor, no created substance exerts a metaphysi­
cal action or influence upon another. For to say nothing of the fact that it cannot
be explained how anything can pass over from one thing into the substance of
another it has already been shown that all the future states of each thing follow
from its own concept. (Kulstad, p. 493)

I agree with a limited interpretation of pre-established harmony, and it fits well
with other recent work such as that of R. C. Siegh, Jr. (Leibniz and Arnauld,
Yale University Press, 1990). My only comment about Kulstad's treatment is that it
seems to me that Kulstad's formulation of LPH does not follow from the narrow
view of natures. There is another possibility. In this possibility, also a limited pre­
established harmony, if God's planned miracles were not to occur substances would
not remain in harmony forever, because God has created them with the natures they
have so that they will remain in harmony when God performs the miracles he has
planned. Suppose God plans to do just one miracle in just one substance. Then he
could give other substances natures such that they stay in harmony after the miracle,
as well as before. (The alternative is that God would have to do a miracle in every
substance if he does one in one substance; or else they would go out of harmony.)
Such a world does not fit limited harmony, yet it fits with Discourse 16.

Gregory Brown, in his article 'Miracles in the Best of all Possible Worlds:
Leibniz's Dilemma and Leibniz's Razor', is clear that miracles—violations of laws
of nature—are possible in Leibniz's system wherein nothing happens without a
reason because miracles are subject to laws ('the general order') higher than the laws
of nature ('subordinate maxims'). Brown emphasises the fact that the higher laws
and the subordinate maxims are not independent in the sense that the general order
includes or entails the subordinate maxims.

In establishing this connection Brown identifies a very good question: if miracles
occur in accordance with the general order, why does Leibniz hold what Brown calls
'Leibniz's Razor': the principle that miracles are not to be multiplied beyond
necessity? For example, Leibniz says in a letter to Lady Masham that

the reason and order itself of the divine wisdom require that there be no recourse
to a miracle without necessity. (Brown, p. 22)
If miracles occur according to general order, then there should be no problem about any number of them occurring, since they will each have their reason, albeit a reason that we cannot know. So if miracles occur according to general order why should miracles be minimized?

Brown finds the answer in Leibniz’s maxim, ‘simplest in hypotheses, richest in phenomena’. This is important not the least because, according to Brown, it explains why miracles are minimised.

Brown proposes that the idea of being simplest in hypotheses and richest in phenomena is to be understood as the claim that the ratio of the number of rules to the degree to which the different rules conflict is to be maximised:

When Leibniz says that God chooses a world which is simplest in hypotheses and richest in phenomena, he means that he chooses a world in which the ratio of the number of general rules to some value measuring the degree to which the general rules conflict with one another is maximized. (Brown p. 23)

So, a perfect world will be a world with a lot of rules which mesh together nicely, without conflict. If we have a greater number of general rules it will follow that we have a greater degree of variety, i.e., richer phenomena, Brown urges. The idea of being simple in hypothesis is to be understood (at least in part) as involving the fewest exceptions to general laws, i.e., the fewest conflict between rules, since an exception to a rule always involves the conflict of two rules.

Simplest in hypothesis does not mean, Brown argues, involving the fewest number of rules. In support of this Brown quotes Leibniz’s 2 April 1715 letter to Wolff:

...a multitude of regularities brings forth variety. So uniformity, that is, generality, and variety are reconciled. (Brown p. 22)

In other words, on the strength of this quote, it cannot be that ‘the simplest in hypotheses’ means for Leibniz ‘fewest in hypotheses’.

If this is right then it explains why the order of God’s wisdom requires that miracles be minimised. It’s not that miracles are an instance of disorder as such. It’s that simplicity requires harmony of rules, and a miracle is a conflict between rules, being an exception to the subordinate maxims, that is, to the laws of nature.

However, I would suggest that it cannot be right. The chief problem is that there are plenty of texts which suggest that by ‘the simplest in hypotheses’ Leibniz does mean ‘fewest in hypotheses’. For a start, in a text (quoted by Brown) Leibniz says

But God has chosen the world which is the most perfect, that is to say, which is at the same time the simplest in its hypotheses and the richest in phenomena, as might be a geometric line whose construction would be easy but whose
properties and effects would be very remarkable and of wide reach. (Brown, p. 21)

A “line whose construction would be easy” does not sound like a maximised number of rules whose simplicity lies in the fact that they don’t conflict. It sounds more like a simple formula which generates a complex trajectory, such as that of fractals say, of the Mandelbrot set, where a simple formula generates an infinity of variety and complexity. Similarly, in the letter of 2 April 1715 to Wolff, quoted above (and again quoted by Brown), Leibniz says

One shouldn’t doubt that there are more things worthy of observation in a healthy body than in a sick one. If everyone were sick, many remarkable observations would cease, namely those constituting the ordinary course of nature, which is disturbed in disease ... If there were many rules, there would be nothing worthy of observation, but only chaos.... And so one can say that that which is more perfect is that which is more regular, that is, that which admits of more observations, namely, more general observations. ... However, a multitude of regularities brings forth variety. So uniformity, that is, generality, and variety are reconciled. (Brown, 22)

Given that Leibniz says that if there were many rules there would be chaos, it seems clear that his idea of simplicity of hypothesis does mean few hypotheses. Brown’s case rests solely on the phrase “multitude of regularities.” But this can be understood as referring not to the number of hypothesis which generate the phenomena, but to the lower level generalisations which express the phenomena, the observable regularities. We need to bear in mind here the threefold distinction that Leibniz draws in Necessary and Contingent Truths (quoted by Brown, p. 21) between the supernatural laws, the laws of nature, and the observable regularities.

If this is right, then we are back with the problem of why Leibniz thought the order of things requires that miracles are minimised. But this is surprisingly easy to answer without appealing to Brown’s curious interpretation of ‘simplest in hypotheses’. In fact there are many reasons within Leibniz’s philosophy, one of which Brown himself spells out in the following section: because the world was made for minds, the happiness of minds is an important consideration in establishing the best possible world; and one of the most important considerations in securing the happiness of minds is to have a world whose beauty, which consists in its order, can be appreciated by those minds. Clearly the order into which miracles fit cannot be appreciated by finite minds, hence there is pressure to minimize miracles.