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Leibniz’s Pre-established Harmony Revisited*

Abstract

This article aims to offer a thorough and new account of the components of Leibniz’s theory of pre-established harmony, understood as an explanation of the unity among all substances. It argues for a formulation of the theory in terms of six complementary components, developing interpretations of them along with critical discussions of other interpretations found in the Leibniz literature. The paper shows that, as they have been presented so far, interpretations of pre-established harmony have almost universally omitted one of its key components, namely Leibniz’s construal of intrinsic force as representational power. Once this is established, the article offers a novel interpretation of the relationship between representational power and the harmony among substances. Particularly, it is argued that, correctly understood, the representation of all substances among themselves entails, or is sufficient for, their harmony.

Keywords

Gottfried Wilhelm Leibniz, pre-established harmony, universal expression, perception, unity, substance

1. Introduction

The theory of pre-established harmony is one of Leibniz’s best-known philosophical views. However, it is not easy to find a full-fledged account of it in the Leibniz literature. When commentators go into details, it is usually an application of the theory – the pre-established harmony between the mind and the body – that garners most attention.¹ And when the pre-established harmony itself is at stake – the “Pre-established Harmony of all things among themselves” (GP VI: 139) – the theory appears for the most part in the context of broader presentations of Leibniz’s philosophy, which scarcely go into detail and usually lack in exhaustiveness.² True, some detailed treatments of the pre-established harmony among all substances have been provided by other scholars. But such treatments do not focus on the theory as a whole, but only on specific aspects of it – perhaps most notably its date.³

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For classical treatments, see Rutherford (1995: 213–18, 265–82) and Rozemond (1997). For a more recent account (which draws partially on Rozemond’s), see Harmer 2018. For the soul–body pre-established harmony as an application of the pre-established harmony among all things, see Antognazza (2009:

351); Laywine (1993: 26); Beck (1969: 225). See also GP VI: 136, GP IV: 484–5.

²

A notable exception is a very valuable work written by Paul Lodge, but it remained unpublished. See Lodge (1997). Another important work is, of course, Mercer (2001: 300–384), but she focuses on the early Leibniz.

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See note 6 for more on this debate.

In this article, I want to take some steps towards filling this lacuna by offering a thorough account of what I take to be the components of Leibniz's theory of pre-established harmony, understood as an explanation of the unity among substances. In doing so, however, I also aim at offering interpretations of these components along with critical discussions of other interpretations that differ from mine. Finally, and perhaps more importantly, a third goal of this article is to show that, as they have been developed so far, interpretations of pre-established harmony have almost universally omitted what I regard as a key component of it, namely Leibniz's construal of intrinsic force as representational force.⁴ In turn, this will allow me to put forward an interpretation of the way in which Leibniz conceived of the relationship between representational power and the harmony among substances. Particularly, I will argue that, correctly understood, the (universal) representation of all substances among themselves *entails*, or is sufficient for, their (universal) harmony.

In order to make the narrative unity more visible, I have chosen to organize my arguments in six consecutive sections. Conceptually, however, they fall into two distinguishable parts. The first part consists of sections 2 to 5. Taken together, they provide a four-stage account of Leibniz's theory in the sense that concerns us here.⁵ Section 2 begins by developing a new argument for thinking of Leibniz's denial of interactionism as a component of pre-established harmony. Next, after a few remarks about occasionalism (section 3), I offer a family of arguments for construing the intrinsic powers Leibniz ascribes to substances as efficient powers (section 4). Section 5 focuses on the nature of these powers. Two main theses are advanced here. The first is that the efficient powers of substances are to be interpreted as representational in nature (5.1). The second thesis is that, as I anticipated, the harmony among substances is a consequence of their reciprocal representation or expression. (5.2). This second thesis is reached through an argument to the effect that (i) the doctrine of universal expression should be interpreted as the doctrine of universal *perception*, and that (ii) perception entails harmony. In turn, my argument for (ii) is based on the claim that perception and harmony are connected in such a way that the very idea of a "disharmonious perception" is self-contradictory. Finally, drawing on the results of sections 2 to 5, section 6 concludes the article by disentangling six components of pre-established harmony, the conjunction of which is offered as a formulation of the theory. I argue that this formulation is preferable to, and more complete than, all the formulations available in the literature of which I am aware.

Two further preliminary points are in order before moving on. As I said, part of my goal in this article is completeness. However, there are some topics which are obviously relevant to Leibniz's pre-established harmony and to which no detailed treatment (or no treatment at all) will be given here. Particularly, I will not dwell on Leibniz's reasons for rejecting occasionalism. Also, I will sidestep the question of when did Leibniz come to hold the pre-established harmony. The reason for these omissions is, quite simply, that both issues have been the subject of a number of very detailed scholarly disputes, and there is no point in rehearsing them here.⁶ Of course, some of the components of pre-established harmony that I do consider – such as Leibniz's rejection of interactionism and his avowal of intrinsic causation – have also been the subject of much debate. In these cases, however, commentators continue to disagree as to whether they should be seen as proper components of pre-established harmony, or, if they should, as to how exactly to interpret

them. So, for all the attention these doctrines have received, they continue to call for discussion.

The second point concerns scope. To be sure, the notion of pre-established harmony – not to mention that of harmony *tout court* – is central to Leibniz's thinking. It features in at least four prominent Leibnizian doctrines: the mind–body pre-established harmony, the pre-established harmony between the natural kingdoms of efficient causes and final causes, the pre-established harmony between nature and grace, and the pre-established harmony among all substances.⁷ I have already mentioned that I will focus on the latter only. Yet, as a matter of fact, my concern is even more limited than that. Arguably, Leibniz's pre-established harmony among all substances is not only a metaphysical doctrine. As Wilson has pointed out, harmony is, for Leibniz, an “excellence-making feature of the world”, the consideration of which is supposed to be “ethically motivating” (2005: 109). In this sense, Leibniz's pre-established harmony has an aesthetic as well as a moral dimension. To the extent that harmony is intimately woven with God's aim of maximizing perfection, the pre-established harmony is also at the basis of Leibniz's theodicy, his vindication of divine justice by showing that our world is the best possible world. All this lies outside the scope of my paper too. Hume famously called causation the “cement of the universe” (*Abstract*, 417); that is, causation is

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See e.g. Bobro (2007); Schönfeld (2000: 140); Watkins (1998: 137); Kulstad (1993a: 97); Mercer and Sleight (1995: 100); Jolley (1993: 392); Cottingham (1988: 109). Although some of these formulations are more austere than others, all of them omit representation as a component of pre-established harmony. Two notable exceptions are Russell (1937: 138) and McDonald Ross (1984: 97), who think that representation is integral to the pre-established harmony. Both of them take the claim for granted, however, without arguing for it.

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The metaphor of “stages” (or “steps”) is not meant to suggest that I aim to provide a “construct” or “rational reconstruction” of the view Leibniz held. Rather, it is simply a way of organizing an interpretation based on the available textual evidence and scholarly discussion. Of course, some reconstruction will be necessary at certain points, given that Leibniz's texts do not favor us a systematic presentation of his theory. The *NS*, to my mind, is not an exception to this, for there the pre-established harmony, despite featuring prominently, appears in a context which is mainly polemical (anti-Cartesian, in particular (S. Brown 1996)) and autobiographical.

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On pre-established harmony's date, see Lucas and Grint (1953: xiii); Parkinson (1967: xlvi); Beck (1969: 226); S. Brown (1984: 155–6); S. Brown (1988: 118); Wilson (1989: 112); Kulstad (1993a: 116, 93); Schönfeld (2000: 140), all of whom agree that, in all its

essentials but the name, the theory was clearly in place by the second half of the 1680s, notably in §§ 14–15 of *DM* (1686) and the associated correspondence with Arnauld (1686–1687). Mercer and Sleight (1995: 100–7) have proposed April 1676 as the date of pre-established harmony's emergence. But Lodge has persuasively argued that the writings of this period do not provide evidence of commitment to *any* account of intersubstantial causation on Leibniz's part (Lodge 1998: 293). Lodge himself argues for a middle ground (namely ca. 1678–1682) between the traditional view and Mercer and Sleight's proposal. He agrees, however, that it was only by the time period of *DM* that Leibniz came to “explicitly adopt” and “self-consciously articulate” the pre-established harmony (Lodge 1998: 317). For more on the issue of pre-established harmony's date, see Garber (2009: 197, n. 43), who draws attention to two relatively early passages that are not taken into account in the previous literature. For Leibniz on occasionalism, see note 22.

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See Rutherford (2017: 100). That the harmony between nature and grace is a case of *pre-established* harmony might seem controversial. See, however, *DM* § 16, where Leibniz argues that supernatural events (such as those based on grace) are included in substances' “individual essences” – even though they surpass their ‘natures’. For discussion, see Kulstad (1993b), Adams (1994, 81–102), G. Brown (1995), Stevenson (1997), and Cox (2002).

what unifies the world.⁸ In the early modern period, the doctrines of real interaction – or physical influx – occasionalism and pre-established harmony were all meant to be causal theories. Thus, they were all meant to be, at least in part, theories of the unity of the world. This is the angle from which the theory of pre-established harmony will be considered here.⁹ But so much for preliminaries. Let us now move towards fleshing out what the theory itself is.

2. Universal Agreement and No Causal Interaction (Stage 1)

The first thing to say is that, according to this theory, finite substances do not interact, and yet all their states are in perfect mutual agreement. There is no commentator in my ken who has ever denied that the latter clause of this statement is integral to Leibniz's pre-established harmony, and that is of course not surprising. Yet some scholars, from decades ago until recent times, have denied the former.¹⁰ As they see things, the properties of a Leibnizian (finite) substance are to be accounted for *partly* in terms of its nature and *partly* in terms of the natures of other (finite) substances. The theory of pre-established harmony is the view that causal interaction is “pre-fixed” in the natures of the causally interacting substances: this is what explains that their agreement is “pre-established”. So, the theory does not rule out interaction; it actually incorporates it while adding “pre-fixed” proviso. Or does it?

When Leibniz advances theses that clash with received opinions and common intuitions, he hastens to clarify that they can nonetheless “save the appearances”.¹¹ His theory of pre-established harmony is one such thesis.¹² And what this theory is meant to save the appearance of is precisely causal interaction: as a consequence of the mutual agreement of things, substances *appear* to be connected through external causation and reciprocal influence. Call this the “Causal Appearance Doctrine”. We find a statement of it in § 14 of *NS*, where Leibniz tells us that the “perfect agreement between all [...] substances [...] produces the same effects *as would be observed if* they communicated with one another” (GP IV: 484/WF 18; my emphasis). Likewise, we read in a famous passage from *Mon.* § 81: “according to the system of pre-established harmony [...] bodies act as if (*comme si*) there were no souls; and souls act as if there were no bodies; and both act as if each influenced the other” (GP VI: 621/AG 223; cf. A II, 2: 245).

There are two points about the Causal Appearance Doctrine to which I want to draw attention. The first is that it undermines the possibility of making room for interactionism within Leibniz's pre-established harmony. Particularly, it entails that the latter is intended as an *alternative* to the former. One might immediately object that the description of a property or event as an appearance does not necessarily imply that that property or event is *only* an appearance: something might of course appear to be what it *really* is, and substances could therefore appear to interact *and* really do so. Yet that implication, or so I want to argue, is exactly what Leibniz has in mind in the case of his Causal Appearance Doctrine. Why?

Let us first agree that, to Leibniz's mind, there is no place for causal overdetermination in the best possible world. That is, in the world displaying the best, wisest combination of “variety of effects” and “simplicity of means” (A VI 4: 1536–7, 1538; GP VI: 603), it is impossible for there to be an effect, *e*, such that it has a plurality of causes, *c*₁ and *c*₂, any one of which is by itself sufficient to bring about *e*: causes, as we may put it, are not to be multiplied

without necessity.¹³ On this basis, let us revert to the passage from *NS* § 14 that I quoted in the previous paragraph and used to support ascription of the Causal Appearance Doctrine to Leibniz:

“[The] perfect agreement between all [...] substances [...] produces the same effects as would be observed if they communicated with one another.”

Note that Leibniz's point here is not simply that the perfect agreement between all substances gives rise to a *certain* appearance of interaction or communication. Rather, his point is that it explains or produces *exactly the same effects* (*le même effect*) that an interactionist would want to explain by appealing to interaction. If overdetermination is not an option, it follows from this that the perfect agreement between all substances is meant to preclude their interaction: otherwise there would be more causes operating than are necessary to produce the effects. This is precisely the conclusion Leibniz arrives at in a letter from July 1715, where he says to Des Bosses that, given the spontaneity of substances, “the influence [among substances] is [...] *superfluous*” (GP II: 503/RL 349; my emphasis) – that is, I take it, *redundant* – since such an influence would entail a substance receiving from another substance what it already possesses by virtue of that harmony. Hence, the denial of causal interaction is integral to pre-established harmony.¹⁴

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Of course, Hume himself believed that causation is *to us* – rather than *in fact* – “the cement of the universe”. What I want to retain is Hume's phrase, not his interpretation of it.

9

That one of the functions of Leibniz's pre-established harmony is to account for the unity of the world is borne out by several passages. See e.g. Leibniz's letter to Arnauld of 9 October 1687, where he says that if substances fail to “harmonize (*accordant*) [...]”, there would be as many systems as there are substances” (A II, 2: 245/LA 148). See also Klopp IX, 174. For more on this, see [reference omitted for blind review]

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See Ishiguro (1977) for the classical version (cf. also Ishiguro 1972: 147–50). Though varying as to details, a recent version of the same main insight is found in Puryear 2010. More generally, that Leibniz accepted “external dependence” among finite substances has been defended by Plaisted (2002), Woolhouse (1985), Kulstad (1980), Wong (1980), Hintikka (1972). On the opposite camp are Mugnai (2012), Cover and O'Leary-Hawthorne (1999), Rutherford (1995: 184 ff.), Mugnai (1992), Sleight (1990), Mates (1986), Rescher (1967), Rescher (1981: 56–83), Russell (1937).

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For a general statement of this idea, see GP IV: 496. For some comments, see next note and Arthur (2015: 146–7).

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See e.g. GP IV: 518. This does not mean that the pre-established harmony is merely a hypothesis whose sole virtue consists in being capable of saving the appearances. Thus, replying to Bayle's objections to the theory of pre-established harmony as set out in the *NS*, Leibniz clarifies that although sometimes “what matters is to show the possibility of the theory and its ability to explain the phenomena”, he can “demonstrate all of this” (GP IV: 518/WF 80). See also Leibniz's draft for a letter to Basnage at GP III: 144 and his “Third Explanation of the New System” (WF 66).

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Most scholars agree that Leibniz rejects causal overdetermination. See e.g. Sleight (1990: 143–4); Jolley (1993: 382, n. 33); Rutherford (1995, 178, n.13). As far as I can see, however, they rarely explain *why* did he reject it. Leibniz himself is not explicit about this question, but he implicitly, and indeed quite clearly, rejected overdetermination. For instance, he sometimes derives his denial of intersubstantial causation from the fact that substances' immanent causal powers are sufficient to explain their states, which clearly requires the rejection of overdetermination as a premise. See GP II: 503, A VI, 4: 1582; A VI, 4: 1621; A II, 2: 53. As already hinted, my suggestion is that Leibniz's reason for rejecting causal overdetermination lies in the ontological (causal) parsimony demanded by his conception of the best possible world as the simplest in laws and means.

The second point about the Causal Appearance Doctrine that I want to mention is perhaps easier to get hold of. We have seen that, given this doctrine, Leibniz must disavow causal interaction on pain of causal overdetermination. But, of course, Leibniz asserts the harmony among substances, and actually their universal harmony: there is a correspondence between all the states of a substance and all the states of every other substance in the universe. In this regard, we might do well to remind ourselves that, as C. D. Broad once observed, the Causal Appearance Doctrine – or, for that matter, the theory of pre-established harmony – does not deny that a state (or set of states) of a substance “really follows” a state (or set of states) of another substance.¹⁵ Drafting a reply to Arnauld, for example, Leibniz writes that, “to be sure, certain thoughts occur to us when there are certain bodily movements, and certain bodily movements occur when we have certain thoughts” (A II, 2: 111/LA 84). Had he denied this, he would have claimed things’ *harmony* (rather than their interaction) to be apparent. Now suppose I am bitten by a dog – my nervous system, stimuli receptors and so on are working normally. As this happens, or almost imperceptibly thereafter, there is a change in my perceptions: I feel pain. This situation raises at least two questions.¹⁶ The first is, (i) what is the cause of my pain? The second: (ii) why is there a correspondence or harmony between the dog’s bite (the alteration in my body) and the pain I feel? Assuming interactionism is true, there is a fairly straightforward answer to these questions: the cause of my pain is the dog’s bite, and that is what explains the correspondence between the two events. Thus, what answers question (i) also answers question (ii). But things are not so easy for Leibniz: since there is no real interaction, the correspondence between the events must be explained on different grounds. Someone favourably disposed to interactionism is likely to counterattack by turning this claim on its head: if things do not interact, then there is no explanation – or anyhow no explanation palatable to Leibniz – available for the correspondence between the dog’s bite and my subsequent pain, which means that Leibniz cannot have disavowed interaction. Indeed, considerations of this sort do appear to underwrite the view of defenders of interactionism in Leibniz, for sometimes they speak as though the only alternative their opponents are left with would be to say that the correspondence among things’ states is merely coincidental or a “fluke” – an alternative that would be unpalatable to Leibniz, of course.¹⁷ We shall shortly see that this is far from compelling. And yet this much must be conceded: since Leibniz denies causal interaction and at the same time embraces harmony, he is bound to face a challenge that interactionists need not face. The challenge is twofold. Its first side is in essence question (ii): if neither chance nor interaction is an option, how can changes in one thing correspond to changes in another? Further, and under the same supposition: (iii) how can changes in one thing correspond, at every instant and deep down to the most minute details, with all the changes of every other thing in the universe? This leads us to the second step of Leibniz’s theory.

3. God as the Overall Source of Correspondence (and Rejection of Occasionalism) (Stage 2)

Like interactionists with respect to (i) and (ii), Leibniz deals with both sides of this challenge through one single answer: God. With explicit reference to the problem of fortuitous harmony, he writes to Arnauld:

“[T]his mutual correspondence¹⁸ of different substances (which cannot act upon one another, if one speaks with metaphysical strictness, and which yet harmonize as if they did act upon one another) is one of the strongest proofs of God’s existence or of a common cause [...]. Otherwise the phenomena of different minds would not harmonize with each other, and there would be as many systems as substances; or else it would be pure chance (*hazard*) if they did sometimes harmonize.” (A II, 2: 244–5/LA 147–8)

Although in this passage Leibniz does not expressly assert that God is the cause of substances’ correspondence, he clearly implies it. For if God were not the cause of this correspondence, why would the harmony between non-interacting substances amount to a demonstration of his existence?¹⁹ At any rate, the relevant point is made more explicit in other passages. Thus, in an earlier letter to Arnauld, after writing that substances are ‘like worlds apart, independent of everything except God’, Leibniz explains that:

“[t]his independence does not prevent commerce between substances, for as all created substances are a continual production of the same sovereign Being in accordance with the same plans, they harmonize exactly among themselves.” (A II, 2: 81/LA 64; 14 July 1686)

And in *DM*, we read:

“God alone brings about the connection and communication (*liaison et communication*) among substances, and it is through him that the phenomena of any substance meet and agree with those of others.” (A VI, 4: 1581/AG 64; *DM*, § 32)²⁰

Varying as to emphasis and detail, essentially the same explanation is apparent in other passages from the 1680s (GP I: 383–4 [1686]), the 1690s (GP VII: 451 [1696], GP IV: 484 [1695], GP IV: 510 [1698]), the first decade of the 1700s (NE 507 [1704]), and the last decade of Leibniz’s life (GP VII: 344 [1715]).

As it stands, however, this explanation leads to too wide a statement of Leibniz’s position. For although it could provide him with an alternative to both interactionism and fortuitous agreement, it is consistent with the view that God is the sole cause not only of the agreement among substances’ states but also of the *states themselves*. Occasionalist thinkers defended just this view, arguing that God alone can be a real cause and, consequently, every change and event in nature must directly be brought about by him, created

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In his defence of monadic interaction in Leibniz, Puryear (2010: 780–1) discusses a text from the *Theodicy* (H 66) which is similar to the one I have quoted from *NS* § 14 and in which Leibniz seems to restrict the apparent character of interaction to those interactions which are “physical” and “immediate”, leaving thus open the possibility for real (non-apparent) non-physical and indirect interactions. Puryear does not consider, however, *NS* § 14, or any of the other passages I have quoted. Moreover, he points out that, besides the text from the *Theodicy*, there is no other passage in which Leibniz suggests that interaction is only apparent, which, as we have seen, is against the textual evidence.

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See Broad (1975: 45).

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As rightly observed by Jorati (2015a: 389 ff.), whom I follow here.

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See Woolhouse (1985: 213). Cf. Ishiguro (1977: 251, 256).

¹⁸

I use “correspondence” instead of Mason’s “relationship” in order to keep consistency with the language I have been employing (which in any case is Leibniz’s language: *correspondance*)

¹⁹

For pre-established harmony as a proof of the existence of God, see also GP IV: 486, GP VI: 613, GP VII: 344, NE 440.

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See also *DM* § 14 (A VI, 4: 1551–2).

substances making no contribution whatsoever: whether minds or bodies, finite beings are mere “occasions” for God’s continual causal intervention.²¹ As mentioned earlier, I will not discuss Leibniz’s reasons for rejecting occasionalism here.²² With respect to it, however, it is worthwhile to note that, in a sense, the occasionalist answer to the questions posed at Stage 1 is even more economical than Leibniz’s. For Leibniz, reference to God explains the agreement between a particular change of state and its correlative (*prima facie*) external cause, as well as the agreement between that change and those of every other substance in the universe – that is, questions (ii) and (iii). Yet it does not explain question (i): God is the sole cause of the *correspondence* between the changes of state of substances, not of the mutually corresponding *changes*. Leibniz is emphatic about this in his replies to Lamy’s objections to *NS*: “I don’t at all agree that God alone is active in substances, or is the sole cause of their changes (*cause seul leur changemens*)” (GP IV: 589/WF: 163). Occasionalists extend God’s role further yet: he guarantees the correspondence between all the states of every substance in a universe *and* causes all those states at every moment. What answers question (i) also answers questions (ii) and (iii).

4. Intrinsic Force, Efficient Causation and Spontaneity (Stage 3)

If God is not the sole cause of things’ effects (even if he is the overall source of their correspondence), and if finite substances do not interact causally, then the third stage of Leibniz’s theory of pre-established harmony will naturally have to incorporate the notion of intrinsic force as a component of that theory. Leibniz does just this in § 10 of *IN*, where both the role of God and that of creatures are included in a summary statement of his conception of “the interrelation between substances”:

“The interrelation between substances or monads arises not from an influence but through an agreement (*consensus*) derived from divine preformation, accommodating each thing to things outside of itself while each follows the intrinsic force (*vim insitam*) and laws of its own nature.” (GP IV: 510)²³

Now, the intrinsic forces Leibniz refers to here are not just any kind of faculty or power whatsoever. This is in a way obvious, for, in embracing such forces, Leibniz is seeking to disassociate himself from occasionalism, and even occasionalists would be prepared to accept faculties provided they are understood in a certain sense, namely as *passive* faculties. Thus, in *Entretiens VII*, 2 Malebranche says that when we consult the idea of extension we do not conceive of any property “*other than the passive faculty (faculté passive) of receiving various shapes and motions*” (OM XII: 150/JS 106; my emphasis).²⁴ Nor are Leibnizian intrinsic forces mere active faculties. Indeed, when Leibniz introduces his notion of intrinsic force in *De prima philosophia Emendatione, et de Notione Substantiae* of 1694,²⁵ he contrasts it with the “faculty of the Scholastics”, which he expressly characterises as a particular kind of “active” power: “The active power or faculty (*potentia activa seu facultas*) of the Scholastics is nothing but a close possibility of acting, which needs an external stimulus, as it were, to be transferred into action” (GP IV: 469/L 433).²⁶ Unlike theirs, his “active force”, Leibniz explains, “contains an act or entelechy” and gives rise to action by itself through an inherent tendency, *conatus* or effort towards action, requiring no external stimulus (GP IV: 469–70/L 433).²⁷ Giving greater specificity to this notion, in *IN* §

6 Leibniz goes on to tell us that substances were “rendered appropriate for fulfilling [God’s] will” by having been endowed with “a certain intrinsic *efficacy*” (*quadam inditam [...] efficaciam*) – a “force or form” – “from which the series of phenomena follow (*consequeretur*)” (GP IV: 507; my emphasis). As I understand these passages, they involve two important ideas. The first, encapsulated in the by-itself or no-external-stimulus condition, is what in many passages Leibniz expresses in terms of the thesis that “every substance has a perfect spontaneity” (A VI, 4: 1581/AG 64).²⁸ The second idea, embedded in the phrase “a certain efficacy”, is that substances’ intrinsic forces are to be understood as *efficient* powers. So Leibniz’s intrinsic forces are neither mere powers nor mere active powers but active powers which spontaneously and efficaciously bring about the states of the beings in which they inhere: they are *spontaneous efficient causes*.

While there is general agreement that Leibniz embraces the thesis of spontaneity and regards substances’ intrinsic powers as causes, not all commentators agree that these causes are *efficient* causes, so I need to dwell on this for a little longer.²⁹

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See GP IV: 509, *Recherche* VI, 2, iii (OM II: 309–20), “Elucidation XVth” (appended to *Recherche* VI, 2, iii) (OM III: 203–252), *Entretiens* VII (OM XII: 147–72). When Leibniz speaks about occasionalism, it is Malebranche’s version that he almost always has in mind. See GP IV: 507, GP IV: 509, and Sleight 1990, 151.

22

The literature on Leibniz on occasionalism is vast. Comprehensive treatments of this topic can be found in Sleight (1990: 161–70); Rutherford (1993, 135–158); Jolley (2005: 121–34). There is some evidence that the early Leibniz embraced occasionalism. See e.g. A VI, 3: 100 (1672–3); A VI, 3: 493 (April 1676). His flirtation with this doctrine seems to have come to an end by the time of the *Pacidius Philalethi* (October 1676). See A VI, 3: 566–7. For more on Leibniz early occasionalism, see Garber (2009, 189–94).

23

Leibniz does not mention the pre-established harmony in this passage, but he does say that he has “already explained elsewhere” the doctrine summarised in it. He is clearly alluding to his *NS* – published three years before – the principal topic of which is the pre-established harmony.

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The occasionalists’ avowal of passive powers is also implicit in De Volder’s letter to Leibniz of 14 November 1704. See GP II: 274.

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This is not to say that this is the first text in which the notion of force appears in Leibniz’s philosophy. But the notion of force does

become more prominent from the time period of that text onwards. For more details, see Rutherford (1995: 148 ff).

26

See also GP IV: 479 and the first draft of *NS* (GP IV: 472), which reproduces the quoted passage of *De emendatione* almost literally. In *NE*, however, Leibniz couples the Scholastic notion of faculty with the idea of the mind as a *tabula rasa*, and describes it not as a (however defective) type of active faculty, but rather as an “inactive faculty” (*facultés sans quelque acte*) or “pure power” (*pures puissances*) (NE 110).

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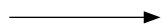
With respect to external stimuli, see also GP IV: 558.

28

See also A VI, 4: 1575; A II, 2: 53; GP VI: 138, GP VI: 296, GP IV: 484, GP IV: 518, GP IV: 558, NE 210.

29

The most important, and also the most explicit, scholar who has denied efficient causation at the creaturely level is Lee 2004. According to him, the sole productive or efficient cause is God, creatures being causes only to the extent that they prescribe, in virtue of their forms and ends (i.e. as formal and final causes), the particular state God produces in them. In favour of seeing creaturely causation as both efficient and formal/final causation are Adams (1994: 309–14); Rutherford (2005, 166); Carlin (2006: 231), and Jorati (2015a). A more radical view is defended by Jonathan Bennett, for whom efficient causation is the *only* type of causation that, according to Leibniz, should



Reconsider the passage from *IN* § 6 which I quoted towards the middle of the previous paragraph. There Leibniz suggests that the notion of *form* captures the idea of force that he has in mind: *formam vel vim*, he writes. Now, drawing on Aristotelian premises, forms do of course fall under the heading of cause. Yet they do not quite fall under that heading as efficient causes or “primary sources of change” (*Phys.* 194b29). Rather, forms are causes in that they provide an “account of the essence” of something (*Phys.* 194b27), and in that they bring something from potentiality to actuality or “actuate” something.³⁰ To the extent that they fulfil the role of giving an end or goal to that which they “actuate”, forms, construed as causes, can also be said to work as final causes (*Phys.* 198a23–26). But, again, more than ends appear to be needed in order for a change to occur: there must also be something which acts for the sake of the end.³¹ Bearing all this in mind, Leibniz’s reference to forms in *IN* § 6 might seem to indicate that he regards immanent causation not as efficient causation but as formal/final causation.

There are two passages that I know in which Leibniz appears to think of the causal activity of forms along the lines of an Aristotelian principle of “actuation”.³² And, of course, Leibniz is famous for having accepted goals or ends in the era of the “new philosophers”, who banished final causation from the natural realm.³³ However, there are a number of good reasons to believe that, though not exclusively, Leibniz conceived of the intrinsic powers of substances as efficient causes.

(i) First of all, Robert Pasnau and Robert Adams have both persuasively argued that, whatever Aristotle’s own views on this matter, sixteenth- and seventeenth-century Aristotelians conspicuously extended the causal activity of forms so as to cover both strictly Aristotelian “formal” causation *and* internal efficient causation.³⁴ For example, Suárez – whose influence on Leibniz has been well documented – says that “the formal cause [is] the principal source of all the actions of the subject” (*Disp. Met.* XVIII, v, 1), an account which clearly resembles the idea of an efficient cause.³⁵ The significance of this lies not of course in any interpretative claim about the way in which later Aristotelians transformed the views of his master. What makes it relevant for my purposes, rather, is that Leibniz seems to agree with them. This is clear from § 3 of *NS*, where, after acknowledging his indebtedness to Aristotle’s “first entelechies”, Leibniz says that the force his forms consist in “contains not only actuality or the fulfilment of possibility” – that is, I take it, the “actuation” of a potentiality – but also an *originating activity*” (GP IV: 479/WF 12; my emphasis). While the phrase “originating activity” (*activité originale*) might perhaps seem somewhat mysterious at first sight, there is at least one text in which Leibniz characterises efficient causes precisely in these terms: “the origin (*origem*) is the efficient cause, as a father originates a son” (A VI, 4: 32). This suggests that one thing that interested Leibniz about forms, or at least about those forms he was willing to rehabilitate, is that they are efficient causes.

(ii) A closer look at the context of Leibniz’s reference to forms in *IN* § 6 lends further support to this. For when Leibniz mentions forms alongside the notions of force and form, he also mentions the notion of *nature*: “force or form, something like what we usually call by the name ‘nature’ (*naturae*)”, he writes (GP IV: 507/AG 159). Now, a few paragraphs earlier, in *IN* § 3, Leibniz had already explained that what he understands by nature is – with Aristotle – “a principle of motion and rest”, where motion means “change” (GP IV: 506).

And in the very title of the work we are considering he equates “nature itself” with “intrinsic force” (GP IV: 504). If this is so, and if natures are principles of change, it follows that intrinsic forces are principles of change. But what else could an efficient cause be if not a principle of change? Hence, substances’ intrinsic forces are efficient causes.

(iii) The third and final reason for construing intrinsic causation as efficient causation that I wish to consider concerns the notion of spontaneity. An examination of the texts in which Leibniz presents an account of spontaneity and its cognates suggests that there are two complementary component ideas to this notion. I have already introduced one of them: a state (event, action, property) is spontaneous if its actualisation requires no external stimulus. That is, a spontaneous state is actualised by the substance of which it is predicated and by that substance *alone*. Here are some representative texts:

“Spontaneous substance is the *one and only* (*unum et solum*) source of its own modifications.” (C 14/MP 175; my emphasis)

“[A]n action is spontaneous when its source is in him who acts... Thus it is that our actions depend *entirely* (*entierement*) upon us.” (GP VI: 296/H 309–10; my emphasis)

“[F]or every present state of a substance occurs to it spontaneously and is *only* (*n’est qu’*) a consequence of its preceding state.” (A II, 2: 53/LA 47; my emphasis)

“As for Spontaneity, it belongs to us insofar as we have within us the source of our actions... I maintain that our spontaneity suffers no exception and that external things have no physical influence upon us.” (GP VI: 289/H 303)

Other texts display a weaker and (in my opinion) less exact conception of spontaneity:

“As for Spontaneity, it belongs to us insofar as we have within us the principle (*principium*) of our actions.” (GP VI: 289/H 303)

“[W]e act with spontaneity, in that there is a principle of action within us.” (Gr 480/SLT 97)

“[Spontaneous actions] have their principle in those who act.” (GP VI: 455; *CDa* § 108)

“That is spontaneous which has the principle of action in the agent.” (C 474)

“The Spontaneous is something whose principle of action is in the agent.” (A VI, 4: 1380)

The basic point in this second set of statements is that an action is spontaneous if the principle of action is internal to that which acts. This view of spontaneity

be attributed to creatures. See Bennett (2005: 139). An exceedingly clear and useful summary of the main positions on this matter can be found in Jorati (2015a).

30
See Pasnau (2011: 549–552); Adams (1994: 309–10).

31
That ends, without efficient causes, are not sufficient to produce something was common doctrine among Aristotelians. For more on this, see Jorati (2015a: 392).

32
The first is in Leibniz’s letter to De Volder of 20 June 1703 (GP II: 250). The second is in a paper entitled (by the editors) “On body and force, against the Cartesians” (1702).

Here Leibniz says that “an entelechy ‘actualises’ (*actuo*) an organic body” (GM VI: 101). I owe this second reference to Adams (1994: 310, n. 6).

33
See A VI, 4: 1560. See also A VI, 4: 1566; A VI, 4: 1665; GP IV: 472.

34
See Pasnau (2011: 550 ff.); Adams (1994: 309–14).

35
I owe this reference to Adams 1994, 310. See also *Disp. Met.* XVIII, ii, 3. For other scholastic sources, see Pasnau (2011: 549–552). On Suárez influence on Leibniz, see Robinet (1981), and Ariew (2012).

is clearly consistent with the stronger one, but they are not equivalent: something might have an internal principle of action without having that principle as its *only* principle of action, which is what the stronger notion of spontaneity demands. Be this as it may, what I want to suggest is that, as characterised in the quoted statements, each of these accounts of spontaneity speaks in favour of seeing substances' intrinsic causal powers as efficient powers.

Beginning with the first account, consider the last statement quoted in the first set of passages. It implies that spontaneity rules out the physical – i.e. real – influence of external things.³⁶ Arguably, the physical influence that spontaneity is implied to rule out is, for Leibniz, the efficiently determining activity of external things. This is plausible enough, for, as O'Neill has argued, the two most secure candidates from whom Leibniz may have acquired the label “physical influence” are Suárez and Daniel Stahl – a colleague of Leibniz's teacher Jacob Thomasius – and both of them define the physical cause as an efficient cause.³⁷ Now, Leibniz would not of course have avowed effects having no efficient cause. So, if external influence is ruled out, then the efficient cause of the states of a substance will have to be located within that very substance. The import of this, in other words, is that intrinsic efficient causation can be seen as a corollary of Leibniz's denial of extrinsic efficient causation. This is exactly what we find in a passage from *NE*, where the conclusion that “everything comes to a substance from itself” or “occurs in the substance spontaneously” is derived from the premise that “no created substance can have an influence upon any other” (*NE* 210). The same derivation pattern is found in § 11 of *Mon.* (*GP* VI: 698) and in *Metaphysical Consequences of the Principle of Reason* of 1712: “because (*quia*) there is no means by which one simple substance could influence another, it follows (*sequitur*) that every simple substance is spontaneous” (*C14/MP* 175, my emphasis).³⁸

One could object at this point that, without aiming for any more details than it contains, this reasoning does not really settle the case in favour of ascribing intrinsic efficient causation to substances. For Leibniz's rejection of external influence applies at the level of *finite* substances only: “no *created* substance can have an influence upon any other”, as Leibniz says in the *New Essays*. So, even if one concedes that, for Leibniz, there is no effect without an efficient cause and substances do not interact causally, the possibility still remains that *God* could be the only true *efficient* cause, created substances' causal contribution being confined to formal/final causation. And this, admittedly, would not collapse Leibniz's position into occasionalism, because, as committed Cartesians, occasionalists do not countenance formal and final causes in nature.

This view has been championed by Lee (2004).³⁹ A full answer to it would require us to enter into the vexed topic of Leibniz's views on divine concurrence, which I cannot do here.⁴⁰ But we need not go so far afield in order to strengthen the case for efficient causation in creatures. For here we can resort to the statements quoted in the second set of passages. As indicated earlier, all these statements express one basic proposition, namely that

(1) an action is spontaneous if the principle of action is internal to that which acts.

Now Leibniz defines the efficient cause in a variety of ways, but the general idea which predominates is this:

(2) the efficient cause is a cause through action.

Thus he writes that “the efficient cause is the active cause” (C 472), that “that is efficient (*efficientes*) whose action is a cause” (A VI, 4: 29),⁴¹ and that “the efficient cause is a cause through action (*per actionem*)” (A VI, 2: 490).⁴² It takes only a moment of reflection to see that, jointly considered, (1) and (2) speak strongly in favour of allowing for efficient causation in finite substances. For, as we have seen, Leibniz thinks that

(3) “every substance has a perfect spontaneity” (A VI, 4: 1581/AG 64).

Given (1), it follows from (3) that

(4) the action of every finite substance is located in itself.

But if (4) holds true and an efficient cause, as (2) states, is a cause through action, it follows that

(5) there is efficient causation in every finite substance.

This closes my arguments for construing finite substances’ intrinsic force in terms of efficient causation. There is one more general point about intrinsic force and its relation to pre-established harmony that I must briefly touch on before moving on to Stage 4.

Leibniz’s introduction of internally efficient forces suggests that there are two senses in which the harmony among substances can be said to be pre-established. First, looking, as it were, from God’s standpoint, the harmony among substances is pre-established in the sense that it is predetermined by God *ab initio*: it “arises through a consensus derived from divine pre-formation (*a divina praeformatione*)”, to use the language of *IN* (GP IV: 510; cf. GP VI: 356–7). The second sense looks at harmony from the bottom up. What I have in mind is this:

“The present state of each substance is a natural result of its *predecessor*.” (GP IV: 521; my emphasis)⁴³

36

The qualification “real” is important, for “physical” need not here mean corporeal. See e.g. *Theodicy* § 27, where Leibniz ascribes “physical cooperation” (*concoors physique*) to God – an immaterial substance (GP VI: 118/H 139). Also Suárez understands “physical” in this broad sense. See *Disp. Met.*, XVII, ii, 6, where he talks both of God and angel as “physical causes”, clarifying that “physical cause is not taken for corporeal or natural cause [...], but more universally for a cause truly and really inflowing into an effect.”

37

See O’Neill (1993: 29–30). The relevant texts are Suárez, *Disp. Met.* XVII, ii, 6 and Stahl, *Regulae Philosophicae*, Pars II, § 9.

38

As seen in our discussion of causal overdetermination, in other texts Leibniz proceeds the other way around, i.e. from the affirmation of intrinsic causation to the denial of extrinsic causation. See e.g. GP II: 503.

39

See especially Lee (2004: 225–6).

40

For some recent discussions, see Arthur (2018: 255–69), Whipple (2010), and McDonough (2007).

41

To be precise, the term for “cause” in this sentence is not actually *causa* but “prerequisite” (*praerequisitum*). But in the previous line Leibniz defines “praerequisitum” as “the cause of something which is called ‘effect’” (A VI, 4: 29).

42

I borrow the first and third quotation from Jorati (2015a: 391). For another definition of the efficient cause in terms of action, see A VI, 4: 139: “Efficiens est cause quae confert ad effectum agendo.” In other passages Leibniz defines the efficient cause in terms of “generation” (A VI, 4: 375), “production” (A VI, 4: 546; A VI, 3: 451), “motion” (A VI, 4: 1682), and “origin” (A VI, 4: 32).

43

See also GP I: 382 (to Foucher, WF 52), GP IV: 579 (to Lamy, WF 154), GP VI: 609 (*Mon.* § 22), GP VII: 412 (to Clarke, LC 85).

The same claim features as an ingredient of the theory of pre-established harmony, referred to as the “hypothesis of concomitance”, in Leibniz’s draft for the letter to Arnauld of 4/14 July 1686 (A II, 2: 53). Leibniz’s talk of “state” in these passages might seem odd, for, in light of our foregoing discussion, we would have expected him to say “force”. But, importantly, both terms stand for the same referent. Leibniz is explicit about this in a letter to Jacques Lelong of 5 February 1712:

“By the force (*Force*) I give to substances I understand nothing but the *state* (*etat*) from which another state follows.” (Robinet 421; my emphasis)

A similar passage occurs in the reply to Bayle’s second objections to *NS*, where Leibniz clarifies that by “force” (*force*) he means “the source of modifications within a created thing, or a *state* (*estat*) of that thing from which it can be seen that there will be a change of modification” (GP IV: 568/WF 122; my emphasis). If this is so, and if Leibniz construes substances’ forces as causes, the harmony among substances can be said to be pre-established because each state of a substance has a preceding state of that very substance as its real cause. The obvious question that this prompts is this: quite what are these states? Given the force/state equation, we can rephrase the question as follows: what is the nature of intrinsic force? This leads us to the final step of Leibniz’s pre-established harmony.

5. Intrinsic Force, Representation and Harmony (Stage 4)

Here we come to an aspect of Leibniz’s pre-established harmony that, as I would argue, constitutes the most decisive component of it. True, one might say that, unlike the mere rejection of interaction, the ascription of intrinsic causal powers to substances is enough for Leibniz to distance himself from the occasionalist view. To that extent, intrinsic causation can be regarded as what is truly distinctive of Leibniz’s theory.⁴⁴ However, it seems to me that in the absence of an explanation of what these causal powers are, Leibniz’s pre-established harmony remains at a rather high level of generality: an explanation of *how* the unity among substances is achieved would still be missing. In what follows I address this topic. I will first focus on the nature of intrinsic force (5.1). Next, I will explain how my position on this matter provides us with an account of the way in which the harmony among substances arises (5.2).

5.1. Intrinsic Force and Representational Power

As I see things, in Leibniz’s mature metaphysics, the nature of the active force of substantial beings is interpreted in terms of *representational power* or *perception*.⁴⁵ Other scholars view things differently and prefer to construe substances’ causal powers as appetitions.⁴⁶ There is no question that this is a plausible and appealing reading, with some powerful points in its favour. After all, as Jorati has pointed out, Leibniz conceives of appetitions as tendencies or efforts, and tendencies or efforts seem much more straightforwardly linked to activity, not to mention causal activity, than perceptions.⁴⁷ However, there are good reasons which tip the scales towards perceptions too, and I think that, all in all, they outweigh those pulling in the other direction. Here are my arguments.

(i) First, we have just seen that Leibniz equates the force of substances with their states, and Leibniz is clear that the states of substances are perceptions: “the perception, which is the internal state of the monad representing external things”, we read in *PNG* § 4 (GP VI: 600/AG 208).⁴⁸ By contrast, the appetitions of a substance are identified with the tendencies towards states, rather than with the states themselves (GP VI: 600, GP III: 575).

(ii) Secondly, even if it is true that tendencies or endeavours appear *prima facie* to be better candidates for an active causal principle than perceptions, it is not true that Leibniz conceived of perception as something passive. This is borne out by a number of passages in which he contends that perception cannot be explained by “material attributes” (GP III: 529) and “mechanical reasons” (GP VI: 609), that is, I take it, attributes and reasons the consideration of which reveals purely passive determinations.⁴⁹ It is also borne out by Leibniz’s claim, in a letter to Des Bosses of 1709, that perception is an “operation” (*operatio*) (GP II: 72/LR 129), for operations can hardly be construed as something purely passive. Finally, in the Preface to the *New Essays*, Leibniz contends that his thesis that “no substance can lack activity” is supported (and indeed proven) by his thesis that “there are hundreds of indications [...] that at every moment there is in us an infinity of perceptions” (NE 53). This would make no sense had Leibniz regarded perception as something purely passive. Hence, perception is active for Leibniz.⁵⁰

(iii) Thirdly, a careful analysis of Leibniz’s definition of appetite does *not* decisively support the view that appetitions are the causes of substances’ changes. The following definition, from *Mon* §15, is no doubt canonical:

44

See e.g. S. (Brown 1984: 158), for whom the spontaneity of substances is what “is really original in Leibniz and [that without which] the doctrine of pre-established harmony would have been commonplace”.

45

An argument for equating representation with perception will be given shortly. We shall take the equation for granted for a moment.

46

On this side are Rutherford (2005: 166); Carlin (2006: 231). On the side of perception are McRae (1976: 47); Kulstad (1993a: 96); Jolley (1998: 591–611); Futch (2008: 168); Jorgensen (2019: 101–06). On neither of these sides are Bobro/Clatterbaugh 1996, 408–425 and Jorati 2015a, who think that a substance’s changes can only be brought about by the substance itself, rather than by its states, however one may wish to construe them. Lodge (1998: 294, n. 9) seems also to lean towards this position, though he does not elaborate.

47

See Jorati 2015a, 394. For appetite as effort (*effort*), see NE 173. As tendency (*tendance*): NE 173, GP III: 575, GP VI: 598. Leibniz usually couples the notion of appetite with that

of *conatus* (NE 173, GP VII: 330). At GP IV: 550 appetitions are called “inclinations” (*inclinations ou appetitions*).

48

See also *Mon*. § 14 (GP VI: 608).

49

See also L-SC 23. It must be admitted that this is not the only way of reading these passages. In saying that perception cannot be explained on the basis of “material attributes” and “mechanical reasons”, Leibniz might have in mind the fact that such attributes and reasons fail to account for the idea of unity, an idea which, as we shall see, is integral to Leibniz’s conception of perception. For this view, see McRae (1976: 28). McRae does think, however, that Leibnizian perception is active. See McRae (1976, 63 ff).

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For a recent and more detailed defence of this idea, see Schepers (2018). He puts the point nicely: “It is only in a metaphorical sense that a Leibnizian monad can ‘see’ the world because its perceiving is not a passive receiving. Rather, it is an action, an action that emerges and remains inside the monad.” (Schepers, 2018: 382).

“The action of the internal principle which brings about the change (*L'action du principe interne qui fait le changement*) [...] can be called appetite.” (GP VI: 609/AG 214)⁵¹

The phrasing of this sentence allows for two possible interpretations, depending on what we take to be the referent (*viz.* “the action” or “the internal principle”) of the relative pronoun (*viz.* “which”) that introduces the subordinate clause (*viz.* “which brings about the change”) forming part of the complement of the subject of the sentence in question (*viz.* “of the internal principle which brings about the change”). If the referent of “which” is “action”, then our sentence will express the following proposition:

(1) The appetite is an action and this action – i.e. the appetite – brings about changes.

Alternatively, if we take “which” to refer to “internal principle”, the relative clause that the pronoun introduces will qualify “internal principle”, in which case we obtain this other, quite different proposition:

(2) The appetite is an action of an internal principle and this internal principle – i.e. not the appetite – brings about changes.

Proposition (1) supports a causal construal, in the efficient sense, of appetitions. But (2) does not. For, if (2) is true, then the appetite would be an action *of* an internal principle, the internal principle itself being the cause of the changes of a substance. And both (1) and (2) are open possibilities. Of course, this does not entitle us to say that appetitions are *not* the principle of change of substances. Nor does it allow us to conclude that perceptions *are* the principle of change of substances.

(iv) But here comes a fourth argument. Consider these texts:

[a] “In fact, nothing can happen to us except thoughts and perceptions, and all our future thoughts and perceptions are merely consequences, though contingent, of our preceding thoughts and perceptions. (A VI, 4: 1550/AG 47; *DM* § 14)”

[b] “The principle of change is in the dog [...]. The representation of the present states of the universe in the dog’s soul effectively produces in it the representation of the subsequent state of the same universe.” (GP IV: 533/WF 78; to Bayle)⁵²

[c] “But the operation proper to the soul is perception, and the nexus of perceptions, according to which subsequent perceptions are derived from previous ones, forms the unity of the perceiver.” (GP II: 72/LR 129; to Des Bosses)

[d] “For it is plain that every simple substance embraces the whole universe in its confused perceptions or sensations and that the succession of these perceptions is regulated by the particular nature in the universe; and every present perception leads to a new perception.” (GP VI: 356–7/H 364–5)

[e] “[T]here are other efforts, resulting from insensible perceptions [...] I call these ‘appetitions’.” (NE 173)

Taken together, I think these passages are good evidence that Leibniz regarded perceptions rather than appetitions as the causes of substances’ changes. Let us put appetitions aside for a moment, focusing on perceptions only. Challenging the view I am defending – the “efficacious perception view”, as they call it – Bobro and Clatterbaugh claim that it “requires that one read terms such as ‘consequence’, ‘lead’, ‘follow’ and ‘result’ as causal language”, which would (presumably) be problematic. Also, they claim, “it requires one to overlook the fact that Leibniz *never* uses explicitly causal language” in connection with perception.⁵³ This does not seem persuasive to me. To begin with, the latter claim is false. For, in [b], which Bobro and Clatterbaugh

do not quote,⁵⁴ Leibniz explicitly describes representational powers as *effectively productive* (*produit effectivement*) of subsequent representations, and “production”, as noted earlier, is one of the terms Leibniz uses to define the efficient cause (A VI, 4: 546; A VI, 3: 451. Cf. n. 42). And this was not a slip of Leibniz’s pen. The same terminology is employed in *NS*, where Leibniz explains that the harmony of body and soul obtains “in virtue of the representative nature which was given to the [the soul] with its being for *production* (*produire*) at the relevant time” (GP IV: 476/WF 26–7; my emphasis).⁵⁵ Once this is recognised, furthermore, Bobro and Clatterbaugh’s first claim turns out to be contentious. For why shouldn’t we read “consequence”, “lead”, and similar terms as causal language if Leibniz himself employs such language in some important texts? The main insight governing the passages we are surveying seems to be fundamentally the same, so it is reasonable to interpret those passages in which Leibniz is not explicit about the meaning of his preferred terminology in light of those in which he is.

Turning now to appetitions, text [e] is particularly interesting. For, in [e], Leibniz not only uses the causal language – as I hope we are now allowed to say – of “result” (*resultant*) in connection with perceptions, but even *subordinates* appetitions or efforts to perceptions: appetitions result *from perceptions*. It might be objected that “result” could be read in purely finalistic terms: appetitions result from perceptions insofar as the latter provide the end towards which the former strive. This may be part of Leibniz’s view, but I doubt it is the whole of it.⁵⁶ For example, in his animadversions against Stahl’s *True Medical Theory* (1708–1710), Leibniz talks of the “representation of the end (*repraesentationem finis*) in a soul” as an “*efficient cause* (*causam efficientem*)” (L-SC 23; my emphasis). This suggests that even if one may feel inclined to see perceptions as final causes, their function would not be limited to that: they are also efficient causes. If we combine this with Leibniz’s claims in texts [a]–[e] and the arguments I have given in (i)–(iii), it

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The omitted portion of this text runs: “or passage from one perception to another”. This might give the impression that perceptions are effects. Hence, one might think, they are not causes. But even if perceptions are effects brought about by something, they can still bring about the resulting perceptions: *previous* perceptions can cause *succeeding* ones.

52

Woolhouse and Francks omit the adverb “effectively” from their translation.

53

See Bobro and Clatterbaugh (1996: 415) (their emphasis). As noted earlier, however, Bobro and Clatterbaugh do not think that appetitions are Leibniz’s preferred candidates for the causes of the change in substances. See note 46.

54

Of the texts I quote, they quote [a], [b] and [d]. In addition to these, they also quote texts in which Leibniz says that the states of substances follow/result from preceding states (GP II:

47, GP II: 91–2, GP IV: 521). But these additional texts do not specify what exactly the preceding states are, whether perceptions or appetitions.

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See also NE 54, where (minute) perceptions are said to have “efficacy” (*efficace*), and GP IV: 522, where Leibniz says that “each preceding perception influences (*a de l’influence*) succeeding ones” (WF 84).

56

As a matter of fact, it would perhaps be more in keeping with the predominant tendency in Leibniz’s writings to say that (the goodness associated with) *appetitions* are final causes. See e.g. GP VI: 620, GP VI: 599, Robinet 421, C 472. For the view that appetitions themselves are final causes, see Carlin 2006, 232. But in other places Leibniz associates perceptions with final causes. See Bobro (2007). For an examination of the several interpretative difficulties and disputes surrounding Leibniz’s views on teleology, see Jorati (2015b).

seems safe to conclude that the nature of the active force of substantial beings is, for Leibniz, representational power or perception.

5.2. *Representational (Perceptual) Power and the Harmony Among Substances*

I have so far argued that substances' intrinsic force is representational force. To be sure, there is much to be said about why Leibniz thinks of substances' activity as representational in nature. In another article I have put this question at the center of the discussion, and I will not repeat my arguments here.⁵⁷ What we need to address now is *how* the representational construal of intrinsic force relates to harmony. And what I want to argue is that such a construal is actually at the very roots of the pre-established harmony. More specifically, I will argue that, interpreted in a certain sense, representation *yields* the harmony among substances.⁵⁸ Two caveats are in order before proceeding. First, I aim to provide little more than the outline of a sketch of this view here: the more detailed work will have to wait for another occasion.⁵⁹ The second caveat is that, as is widely agreed in the literature, "representation" and "expression" (and their cognates) are synonymous terms for Leibniz.⁶⁰ So, I shall employ them accordingly. (A different matter is of course "perception", although I shall argue that, in the contexts relevant to our topic, representation/expression is perception. But we will come to that in due course).

First things first: my texts. Consider:

[a] "Since each [substance] accurately represents the whole universe in its own way and from a particular point of view [...] there will be a perfect agreement between all these substances." (GP IV: 484/WF 18; NS § 15)⁶¹

[b] "Here now is the cause of the harmony found out. For God needs only to make a simple substance become once and from the beginning a representation of the universe, according to its point of view; since from thence alone it follows that [...] they will always have a harmony among themselves." (GP VII: 412/LC 85; "Fifth Paper against Clarke", § 91; my emphasis)

[c] "But since all substances are continually produced by the sovereign being and express the same universe or the same phenomena, they correspond exactly." (GP I: 382/WF: 52; to Foucher, 1686)

[d] "And it is through [the system of correspondence] that we have at last the solution to the great problem of the union of the soul with the body or with an organized mass [...] The soul was created from the outset in such a way that all that the body can provide appears in the soul, in virtue of the representative nature which was given to it with its being." (GP II: 476/WF 26; NS § 5, First Draft)

[e] "It can even be said that by virtue of these minute perceptions the present is big with the future and burdened with the past, that all things harmonise – symponia panta, as Hippocrates put it." (NE 55)

These texts are important not only because they establish a clear link between substances' capacity to represent – embedded, in some of the passages, within the doctrine of universal expression – and pre-established harmony: they also make it plain that the former *explains* the latter.⁶² Thus, Leibniz says that it is *in/by virtue of* their representing the whole universe that things harmonise (texts [d] and [e]) and that, *since* substances represent, they mutually agree or correspond ([a] and [c]). Consistent with this, text [b] goes even further, for it indicates that representation is all that is needed for things to harmonise. That is, substances' representation is *sufficient* for harmony.

Now, throughout my discussion at Stage 4 I have been using, admittedly somewhat loosely, “perception” and “representation” (or “expression”) as equivalent terms. To some extent, this seems acceptable, because texts [a]–[e] all deploy the same chief insight and formulate that insight in terms of expression/representation (in [a]–[d]) and perception (in [e]). Moreover, Leibniz sometimes uses “perception” and “expression” interchangeably in the same text.⁶³ The fact is, however, that Leibniz distinguishes between expression/representation on the one hand, and perception on the other. Roughly speaking, x expresses/represents y if a consideration of the properties of x allows one to pass to the properties of y : there is a structural isomorphism between x and y such that it is possible to map the properties of x onto those of y .⁶⁴ Perception adds an important proviso: x must be a *unity*. As Leibniz puts it in one text, “perception is nothing more than the expression of the many in the one (*nihil aliud [est], quam multorum in uno expressio*)” (GP II: 331).⁶⁵ Mathematical objects, speech and maps all express yet do not perceive the items they refer to, for those items are not expressed in a unity.⁶⁶ So every perception is a representation, though not all representations are perceptions. Assuming, as I believe, that Leibniz regarded representation as integral to pre-established harmony, exactly which notion of representation was he thinking of?

Briefly put, my answer to this question is this. First, I think that

57

See ...[reference omitted for blind review]

58

In defending this, I am against Sleigh (1990: 138). Cf. Lodge (2007: 9), who says that, for Sleigh, substances’ representation “is explanatory redundant with regard to our understanding of pre-established harmony”. Consistent with the view I will defend, Wilson 2005 thinks that, for Leibniz, mutually representing substances cannot fail to harmonize. However, she regards her own way of getting as this as “anachronistic” and lacking textual evidence (2005: 117). Be this as it may, I should register up front that I owe much of the original impetus for pursuing these topics to reading Wilson’s wonderful article.

59

Thus, and perhaps most notably, I will have nothing to say about distinct/confused representation and the doctrine of “ideal action”, which would have to be included in a more elaborated version of what follows. Also, problems concerning representation (or expression) and harmony in different possible worlds will, beyond one passing remark (see note 71), be left aside.

60

See e.g. Sleigh (1990: 217, n. 76), Kulstad (1977, 55–77), Puryear (2010, 767). For passages supporting the equation, see e.g. GP IV: 484, GP II: 112.

61

Emphasis added in this and all the ensuing texts.

62

Further (though admittedly less explicit) textual evidence for this can be found in GP II: 12, GP IV: 439, GP VI: 289–90, GP VI: 616, and GP VII: 316–7.

63

See GP IV: 484: “perceptions *or* expressions” (*perceptions ou expressions*). See also A VI, 4: 1550.

64

See Sleigh 1990, 174. See also Swoyer (1995: 65–99), where expression is described as a “structure-preserving mapping” property. For this notion of expression, see A II, 2: 231; A VI, 4: 1370; GP I: 383, C 15.

65

See also GP III: 329, GP VI: 598, GP III: 575, A II, 2: 240; A II, 2: 231 – though Leibniz’s formulations are slightly different in some of these passages.

66

For these and other examples of expressive items, see A VI, 4: 1370. See also GP VI: 617. For an examination of all the examples of expression given by Leibniz, see Kulstad’s classic 1977 paper and, more recently, Jorgensen (2018: 101–19).

(1) weak expression is not sufficient to yield harmony.

That is, harmony demands more than a mere structural isomorphism between the related items. But, secondly, I think that

(2) perception *is* sufficient to yield harmony.

Further, I think that,

(3) in metaphysical contexts such as the doctrine of universal expression, expression *means* perception.

That is, there is no such thing as the doctrine of universal expression in Leibniz, where “expression” is construed as weak expression: the doctrine of universal expression *is* the doctrine of universal perception. If this is right and (2) is true, it follows that

(4) universal expression is sufficient for harmony.

The burden of this reasoning rests on claims (2) and (3). Let us concentrate on them.

In fact, both claims are remarkably simple. Let us begin with (3), the claim that Leibniz's doctrine of universal expression is really the doctrine of universal perception. We saw above that, according to one of Leibniz's formulations, perception is expression/representation of “the many in one” (rather than in expressive-yet-non-perceiving entities such as maps and mathematical objects). Here is another, more specific formulation of this view, featuring both in the draft of Leibniz's letter to Arnauld of 9 October 1687 and in the actual letter:

“In natural perception [...] what is divisible and material and dispersed into many entities [is] expressed or represented *in a single indivisible entity or in a substance which is endowed with genuine unity.*” (A II, 2: 240/LA 144; my emphasis. Cf. A II, 2: 231)

This formulation is more specific than the previous one because it specifies that the unities Leibniz has in mind when talking of perception are *substances*.⁶⁷ And from this, I submit, (3) follows quite straightforwardly. For the doctrine of universal expression is, of course, a doctrine about *substances*. This is clear from several passages, including texts [a] to [c] quoted above and the following, which precedes [c] and dates from the same period as the formulation of perception just provided:

“I believe that *every individual substance* expresses the whole universe in its own way, and that each of its states is a consequence [...] of its preceding one, as if there were only God and that substance in the world.” (GP I: 382/WF: 52. To Foucher, 1686; my emphasis)

So, if perception is expression of the many in a substance, and if universal expression is a doctrine about substances, then universal expression is universal perception. That is, (3). Once this is established, it remains for us to see why perception, as I affirmed in (2), is sufficient to yield harmony. Like (3), (2) partly springs from some elementary considerations about what perception is, namely that it is the expression of a multiplicity in a unity. Bearing this in mind, think of the following:

(5) “Harmony is unity in variety (*unitas in varietate*)” (A VI, 4: 1358) or “unity in multiplicity (*unitas in multitudine*)” (GP I: 232).

Proposition (5) is Leibniz's general definition of harmony.⁶⁸ We shall observe that, on the face of it, and unlike his definition of perception, Leibniz's account of harmony locates, so to speak, unity in multiplicity rather than multiplicity in unity. But this does not seem to convey any relevant difference, for

in other places Leibniz is happy to phrase (5) so as to match almost exactly his definition of perception. Thus, in one piece, after saying that “harmony is unity in variety” (A VI 4: 1358) – that is, (5) – he adds that “harmony is when many things are gathered into some unity (*ad quendam unitatem revocantur*)” (A VI, 4: 1359; cf. A VI, 1: 484–5). This allows us to rephrase (5) as (5*) harmony is variety in unity.

And, with (5*) in place, one cannot help concluding that, for Leibniz, it is just impossible that there be perception without harmony. For, if perception is expression of the many in a unity, then, given (5*), it is *definitionally* true that whenever there is perception, there is harmony: harmony is integral to perception. Further, since, as (3) has revealed, the doctrine of universal expression is the doctrine of universal perception, we can conclude that whenever there is universal expression, there is universal harmony. That is, (4).

There is a fairly obvious objection that could be made against the argument I have developed, so I must face it before leaving for the final section: the argument fails – so the objection goes – because the unity involved in the definition of perception is the unity of the perceiver. However, what matters for the pre-established harmony is not the unity of the perceiver, but rather the unity of the *world*. In other words: while it is true that perception entails the harmony among the states of *a* perceiver, it does not entail the pre-established harmony among the states of *different* perceivers.

This is a good objection and warrants a great deal more comment than I can give it here. In short, however, I think the answer to it has two words: *universal* expression – the emphasis laying on the first word. Let me explain.

We have seen that Leibniz’s notion of perception entails his general notion of harmony. Further, we have seen that, in the doctrine of universal expression, expression means perception. Yet there is more to this doctrine than expression/perception. There is universality, too: in our world, each substance expresses – i.e. perceives – all other substances. So, if there is harmony among the states of *a* perceiver, it follows that there is harmony among the states of *different* perceivers too. In fact, it follows that there is harmony among the states of *all* the perceivers existing in the universe of that perceiver.⁶⁹ For the perceptual states of each substance intentionally (i.e., representationally or “objectively”, to use Cartesian terminology) reduplicate, from a particular perspective, all the states of all the other substances existing in the universe.

67

The adjective “natural” before “perception” in the quoted passage does not place any restriction on this. Its role is simply to underline the contrast between the perception of non-rational and rational beings, whose perceptions can be accompanied by consciousness (A II, 2: 240). In both cases the perception occurs in a substance.

68

As is well documented by Rutherford (1995: 21), n. 27 and Antognazza (2007: xxi, 9–10, 45–7), this definition of harmony is repeated in several texts, including an early letter to Arnauld of 1671 (A II, 1: 174). See A II, 1: 98; A VI, 1: 475; A VI, 1: 477; A VI, 1: 479; A VI, 1: 484–5; A VI, 2: 282, 283; A VI, 3: 116. For

a late passage, see Leibniz’s letter to Wolff of May 18, 1715 (GLW 171–2).

69

This is not of course to suggest that the individual simple substance and the world have the same degree of unity: the former has *per se* unity (the unity of a substance), whereas the latter has only accidental unity (the unity of an aggregate). But the details about this difference track (in my opinion) Leibniz’s theory of distinct/confused perception, which, as already noted, I will not discuss here. See note 58. For the world as an aggregate, see GP III: 573; GP VI: 106, 107; GP VII: 322; LH IV, III, 5e, Bl. 23. For discussion, see Feeney (2016).

We can see, then, that, upon elaboration, universal expression entails the harmonious correspondence *across* perceiver. This, I would like to suggest, is what Leibniz has in mind when, in an intriguing passage written to Jaquetot in 1704, he says the following:

“The miracle, or rather the marvel, is that each substance is a representation of the universe from its own point of view. This is the greatest richness and perfection that can be attributed to created things and to the operations of the Creator; it is like a reduplication of worlds in innumerable mirroring substances, by means of which the universe is infinitely varied.” (GP III: 465/WF 176)

First and foremost, note that this passage comes just before Leibniz has claimed that “once we have established the point that the universe is represented in each monad, everything else follows”.⁷⁰ Quite *what* follows? Well, the representations Leibniz refers to here are perceptions, for they occur in substances and hence in unities. Further, according to this passage, the “greatest richness and perfection” of the created world is given by the fact that these representations reach the whole of creation. That is, our world is the best possible world *because* all of its substances perceive one another. But doesn't Leibniz believe that our world is the best possible world precisely insofar as it exhibits the greatest possible amount of *harmony*, i.e. “variety in unity”?⁷¹ Hence, there is universal harmony *because* all of its substances perceive one another. That's the force of Leibnizian universal expression. And that's how, once again, we are thrown back to (4).⁷²

6. Conclusion: a Formulation of the Theory of Pre-established Harmony

Hitherto, I have offered a four-stage presentation of Leibniz's pre-established harmony understood as an explanation of the unity among all substances. To sum up, these stages are the affirmation of universal agreement and denial of causal interaction (stage 1); the idea of God as the ultimate source of substances' reciprocal correspondence (and the rejection of occasionalism) (stage 2); the ascription of intrinsic efficacious force to substances (stage 3); and the construal of this force as representational in nature (stage 4). On the basis of what we have seen at each of these stages, we can now formulate Leibniz's theory as the conjunction of the following main components (C):

- (C1) Every substance relates to every other substance in the universe.
 - (C2) The overall source of substances' relatedness is God.
 - (C3) The states of a substance are not the result of God's direct causal intervention.
 - (C4) Substances do not interact causally or depend externally upon each other.
 - (C5) The (non-initial) states of a substance are caused by the internal force/preceding states of that substance.⁷³
 - (C6) The internal force of a substance is representational force or, more precisely, perception.
- (C1) is a general statement of the fact that substances are not detached entities but members of a collectively unified system: they form *a* universe. (C3) and (C4) are negative statements about what the ground of this fact cannot be. They distinguish Leibniz's theory from occasionalism and interactionism, respectively. Components (C2) and (C5) are positive statements about what the ground of substances' interrelation is. However, they leave undetermined

the nature of the force predicated in (C5). Finally, (C6) is a positive statement about the nature of this force. Thus (C2)–(C6) give content and greater specificity to the assertion, in (C1), that all substances are interrelated. Taken together, (C1)–(C6) provide a *definiens*, in terms of necessary and sufficient conditions, of pre-established harmony.

One might object that this formulation makes no mention of the notion of harmony and therefore can hardly be an adequate formulation of pre-established harmony, let alone a proper *definiens* of it. However, it should be clear at this point that the notion of harmony is implied by my preferred formulation. For (C6) contains the notion of perception and, as I have argued, the notion of harmony is integral to that of perception. More precisely, universal perception is what explains the universal harmony among substances. Furthermore, I have also argued that the pre-established character of harmony is explained, in two different senses, by (C2) and (C5).⁷⁴ So my formulation not only explains harmony but also the fact that it is pre-established. This being the case, I would even say that (C1)–(C6) is not only an adequate formulation of pre-established harmony. It is also better than many formulations I have come across in the literature. For these formulations almost universally omit perception,⁷⁵ which, I have argued, is the basis from which harmony in and across substances arises. Furthermore, many of them either ignore the notion of harmony and only state the conditions under which harmony is pre-established, or else assume, without explaining it, the notion of harmony by introducing it under the guise of terms such as “correspondence” or “conformity”.⁷⁶ So, in sum, (C1)–(C6)

70

See also Leibniz's letter to De Volder of 20 June 1703, where he says that, once one has “uncovered the full force of [the doctrine of universal expression]”, the rest of his philosophical views can be seen to be “nothing but consequences” (GP II: 253/L 531).

71

See A VI, 4: 1538, GP VI: 603. As is well known, exhibiting the greatest possible amount of harmony or variety in unity is not the only way Leibniz defines the best possible world. See e.g. A VI, 3: 472, 581; GP III: 635–36, GP VI: 445, GP VII: 303, 306, where he mentions “quantity of essence” or reality as one of God's criteria for selecting our world rather than other possible worlds. Yet there are persuasive ways of interpreting the amount-of-reality criterion as ultimately reducing to (or at least as being consistent with) the harmony criterion. For discussion, see e.g. Rutherford (1995: 12–5, 22–6); Brown (1987).

72

If expression, as some commentators have it, is a feature of many (perhaps all) possible worlds, doesn't my argument entail that harmony is a feature of all possible worlds? As I said, I cannot enter into this kind of (*prima facie*) problem here (see note 58). In short, however, I think it does not. For note that my argument does not conclude that expression *tout court* entails harmony, but only that

universal perception entails universal harmony. Thus, universal harmony only obtains in a world – such as the actual world – in which, at the fundamental metaphysical level, there is nothing but *substances* expressing (i.e. perceiving) one another. But the elaboration of this point must be left for another occasion. For more on this, see Wilson (2005).

73

Here the qualifier “natural” (alongside “non-initial”) may be needed, but this will surely seem unnecessary to those who think that there is no room for miracles (of any kind) in his system. See G. Brown (1995: 19–39); Stevenson (1997: 167–188); Cox (2002, 185–207). Though other scholars think that miracles (at least some kind of) are possible for Leibniz. See Kulstad (1993b) and Rutherford (1995: 241). A very balanced position that I hesitate to locate on any of these sides is developed by Adams (1994: 81–102).

74

See Stage 3.

75

See the references given in note 4.

76

For a formulation liable to the first charge, see Mercer and Sleight (1995, 100) (cf. Lodge 1998: 294 (n. 9) for some comments). Liable to the second charge is Bobro (2007). In



appear to provide us with an adequate, preferable and fairly complete formulation of Leibniz's pre-established harmony among all substances: it explains, so to speak, the pre-established harmony's anatomy – its components – as well as its physiology – how it arises from universal perception.*

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* In memory of Prof Maria Rosa Antognazza, under whose guidance many of the ideas in this article came to my mind.

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Gastón Robert

Leibnizova prestabilirana harmonija iznova razmotrena

Sažetak

Ovaj članak ima za cilj ponuditi temeljit i nov prikaz sastavnica Leibnizove teorije prestabilirane harmonije, shvaćene kao objašnjenje jedinstva među svim supstancijama. Zalaže se za formulaciju teorije u pogledu šest komplementarnih komponenti, razvijajući tumačenje o njima zajedno s kritičkim raspravama o drugim tumačenjima koja se nalaze u literaturi o Leibnizu. Rad pokazuje da su, kako su dosad predstavljene, tumačenja prestabilirane harmonije gotovo univerzalno izostavile jednu od njezinih ključnih komponenti, naime, Leibnizovo razumijevanje intrinzične sile kao moći predodžbe. Nakon što se to utvrdi, članak nudi novo tumačenje odnosa između predodžbene moći i harmonije među supstancijama. Osobito se tvrdi da, ispravno shvaćena, predodžba svih stvari međusobno povlači za sobom ili je dovoljna za njihovu harmoniju.

Ključne riječi

Gottfried Wilhelm Leibniz, prestabilirana harmonija, opći izraz, osjetilnost, jedinstvo, supstancija

Gastón Robert

Leibniz' prästabilierte Harmonie neu betrachtet

Zusammenfassung

Dieser Artikel hat zum Ziel, eine gründliche und neue Darstellung der Bestandteile von Leibniz' Theorie der prästabilierten Harmonie zu offerieren, die als Erklärung der Einheit zwischen allen Substanzen begriffen wird. Man befürwortet eine Formulierung der Theorie unter dem Aspekt der sechs komplementären Bestandteile und entwickelt Auslegungen von ihnen gleichlaufend mit kritischen Diskussionen zu anderen Interpretationen, die in der Literatur über Leibniz vorzufinden sind. Der Aufsatz zeigt, dass die Deutungen der prästabilierten Harmonie, wie sie bisher präsentiert wurden, nahezu durchgängig eine ihrer Schlüsselkomponenten ausgelassen

haben, nämlich Leibniz' Lesart der intrinsischen Kraft als Vorstellungskraft. Sobald dies festgestellt ist, bietet der Artikel eine neuartige Interpretation der Relation zwischen Vorstellungskraft und der Harmonie zwischen Substanzen. In erster Linie wird argumentiert, dass, korrekt verstanden, die Vorstellung von allen Substanzen unter sich deren Harmonie mit sich bringt bzw. dafür ausreicht.

Schlüsselwörter

Gottfried Wilhelm Leibniz, prästabilisierte Harmonie, allgemeiner Ausdruck, Wahrnehmung, Einheit, Substanz

Gastón Robert

L'harmonie préétablie de Leibniz revisitée

Résumé

Cet article a pour objectif d'offrir un compte rendu nouveau et approfondi des composantes de la théorie de l'harmonie préétablie leibnizienne, interprétée comme l'explication de l'unité parmi toutes les substances. La formulation d'une théorie au regard des six composantes complémentaires y est défendue, en développant ainsi une interprétation ainsi que des débats critiques qui portent sur d'autres interprétations issues de la littérature sur Leibniz. Le présent travail montre que les interprétations de l'harmonie préétablie, à la manière dont elles ont été présentées jusqu'à présent, ont quasiment toutes omises l'une de ses composantes clé, à savoir la conception leibnizienne de la force intrinsèque de la faculté de représentation. Une fois cela établi, l'article propose une nouvelle interprétation de la relation entre la faculté de représentation et l'harmonie parmi les substances. Plus particulièrement, il y est affirmé que si elle est correctement comprise, la représentation de toutes les substances s'entraîne les unes les autres ou est suffisante pour son harmonie.

Mots-clés

Gottfried Wilhelm Leibniz, harmonie préétablie, expression universelle, perception, unité substance