OBJECTIVE BEAUTY AND SUBJECTIVE DISSENT IN LEIBNIZ'S AESTHETICS

CARLOS PORTALES

According to the classical view, beauty is grounded on the universe's objective harmony, defined by the formula of unity in variety. Concurrently, nature's beauty is univocal and independent of subjective judgement. In this paper I will argue that, although Leibniz's view coincides with this formula, his philosophy offers an explanation for subjective dissent in aesthetic judgements about nature. I will show that the acceptance of divergences on aesthetic value are the result of a conception of harmony that includes qualitative variety and dissonance.

I. INTRODUCTION

Leibniz's aesthetics fall within the Pythagorean tradition in so far as he agrees that the beauty of the universe is an objective value grounded on the harmony of the cosmos. In this view, harmony is a property of systems, defined as unity in variety, which is univocal and indifferent to subjective judgement. In this paper I argue that, despite Leibniz's complete adherence to this formula, his interpretation explains and justifies the subjective dissent in aesthetic judgements. I show that the possibility of valid divergences regarding the aesthetic value of nature is the result of a Leibnizian conception of the universe's harmony, which includes qualitative variety and dissonance. The secondary objective of this paper is to present some aspects of the underrepresented views of Leibniz on beauty and aesthetics in general. Even though aesthetics as a discipline was baptized by a Leibnizian philosopher – namely, Alexander Baumgarten –, few papers and book chapters explain Leibniz's own views on the topic. In this sense, I hope that,

The present work is based on a paper given at the European Society for Aesthetics Conference 2017, in Berlin, Germany. I thank Pauline Phemister, Lloyd Strickland, and Edward Glowienka for their valuable comments.

See Eugenio Colorni, 'L'Estética di Leibniz', *Rivista di filosofía* 30 (1939): 66–81; Clifford Brown, 'Leibniz and Aesthetic', *Philosophy and Phenomenological Research* 28 (1967): 70–80; Romano Galeffi, 'À propos de l'actualité de Leibniz en esthétique', in *Akten des II. Internationalen Leibniz-Kongresses*, vol. 3 (Wiesbaden: Steiner, 1975), 217–28; Ursula Franke, 'Von der Methaphysik zur Ästhetik: Der Schritt von Leibniz zu Baumgarten', supplement, *Studia Leibnitiana*, no. S14 (1975): S229–S40; Javier Villanueva, 'Reflexiones sobre la estética de Leibniz', *Anuario Filosófico* 17 (1984): 137–51; José María Ortiz, 'La justificación del mal y el nacimiento de la estética: Leibniz y Baumgarten', *Anuario Filosófico* 21 (1988): 151–57; Jeffrey Barnouw, 'The Beginnings of "Aesthetics" and the Leibnizian Conception of Sensation', in *Eighteenth-Century Aesthetics and the Reconstruction of Art*, ed. Paul Mattick, Jr. (Cambridge: Cambridge University Press, 1993), 52–95; Herbert Breger, 'Die mathematisch-physikalische Schönheit bei Leibniz', *Revue internationale de philosophie* 48 (1994): 127–40; Frédéric de Buzon, 'L'Harmonie:

through the discussion of the described matter, this paper will contribute to filling this gap both in Leibniz's scholarship and in the history of aesthetics.

In section II, I briefly set the context of Leibniz's notion of beauty and harmony. On the one hand, I trace the similarities between Leibniz's view and the Pythagorean tradition. I explain that for Leibniz, beauty is measured with the formula of unity in variety or harmony and does not need to be subjectively perceived. On the other hand, I emphasize how the classical notion of harmony changed during the Baroque. This change refers mainly to the inclusion of dissonance in harmony, which had a significant impact on Leibniz's philosophy.

Afterwards, in section III, I explain the notion of variety and the role of dissonance in Leibniz's notion of harmony and beauty. Variety, in Leibniz's interpretation of the formula 'unity in variety', is not just quantitative multiplicity, but also qualitative diversity. Therefore, something beautiful is not just measured by many things united, but also by the degree of diversity among those things. Accordingly, the world is beautiful because of the heterogeneity of its constituents. Leibniz postulates that, in a series of mostly consonant and harmonic elements, dissonances are the best diversifiers, and are required to enhance harmony and beauty. This entails the counterintuitive idea that dissonances maximize harmony by opposing it. For Leibniz, beauty is achieved when dissonances are harmonically resolved in the unity of a whole. This means that nature's beauty is the result of a variety, in which dissonances have a certain order that offers complexity, yet at the same time harmonic resolution.

In the last section (IV), I claim that Leibniz's concept of aggregates suggests the existence of subjective harmonies that run in parallel with the objective harmony of the world. Aggregates are formed when the mind gives unity to a variety of things through an idea. As a result, aggregates comply with the formula of beauty as harmony and unity in variety. Since ideas are subjectively grounded, they enjoy a certain level of freedom regarding the way in which they select the multiple elements they unite. At this point I argue that dissonances become imperative for there to be diversity in aesthetic judgements. This is because the presence of dissonances in the world allows ideas to form aggregates with different combinations of consonant and dissonant elements. As a result, aggregates can resolve dissonances harmonically with different degrees of success, thus generating different aesthetic judgements about nature.

Métaphysique et phénomenalité', Revue de métaphysique et de morale 98 (1995): 95–120; Frederick Beiser, Diotima's Children: German Aesthetic Rationalism from Leibniz to Lessing (Oxford: Oxford University Press, 2009); Pauline Phemister and Lloyd Strickland, 'Leibniz's Monadological Positive Aesthetics', British Journal for the History of Philosophy 23 (2015): 1214–34.

In this sense, I conclude that different, even contradictory, aesthetic judgements are explained and justified, despite the adherence to an objective notion of beauty.

II. BEAUTY AND UNITY IN VARIETY

For the Pythagoreans, the cosmos was created following perfect proportions based on mathematical ratios, which resulted in it being harmonious. Timaeus of Locri reportedly claimed that God created a perfect and beautiful universe, following harmonically combined proportions, to which the mind adjusts and perceives beauty.² Harmony was first and most significantly a force that rules the universe. According to the popular story, Pythagoras discovered a mathematical ratio in the harmony of musical sounds, which pertains to the order of the universe, so he concluded that the beauty of musical harmony is a sensible expression of the proportion that configures the harmony of the cosmos.³ This view was partially shared by other Greek thinkers, such as Plato, who agreed that the universe is based on harmony thanks to the ruling presence of measures or numbers, which order the cosmos.

For Plato, this ordering or harmony is not just what causally produces beauty, it is beauty in itself, as he claims in *Symposium* (206c–e); beauty and harmony are identical.⁴ A similar view was held by Augustine of Hippo, who in *De ordine* (386 CE) states that beauty is found in the abstract principles of numbers, proportions and harmony over and above the particular sounds or shapes that instantiate them.⁵ Similarly, for Thomas Aquinas, the 'meaning of beauty' was harmony (*consonantia*), integrity (*integritas*), and brightness (*claritas*).⁶

The Pythagorean Philolaus reportedly stated that 'harmony is generally the result of contraries; for it is the unity of multiplicity, and the agreement of discordances' and dissimilar things 'must be organized by the harmony, if they are to take their place in the connected totality of the world.'7'Unity in multiplicity' is also Leibniz's definition of harmony and, just like Philolaus, Leibniz thinks that harmony is the metaphysical principle that ruled the universe. Consequently,

Robert Navon, ed., The Pythagorean Writings: Hellenistic Texts from the 1st Cent. B.C. – 3rd Cent. A.D., trans. Kenneth Guthrie and Thomas Taylor (New York: Selene Books, 1986), 116–18.

Flora Levin, Greek Reflections on the Nature of Music (Cambridge: Cambridge University Press, 2009), 6.

George Grube, 'Plato's Theory of Beauty', Monist 37 (1927): 274.

⁵ Augustine, 'From On Order', in Greek and Roman Aesthetics, trans. and ed. Oleg V. Bychov and Anne Sheppard (New York: Cambridge University Press, 2010), 204.

Thomas Aquinas, Scriptum super libros sententiarum magistri Petri Lombardi, ed. Pierre Mandonnet and Marie-Fabien Moos (Paris: Lethielleux, 1929), 1724.

Navon, *Pythagorean Writings*, 131–32.

harmony is an objective value of the cosmos. In an essay entitled On Wisdom (1693–1700?), Leibniz states that 'unity in plurality [Einigkeit in der Vielheit] is nothing but harmony [Übereinstimmung] and, since any particular being agrees with one rather than another being, there flows from this harmony the order from which beauty arises.'8 As this quotation shows, Leibniz's notion of beauty coincides with the Pythagorean view that beauty is related to harmony or 'unity in plurality'. Different versions of this latter expression, such as 'diversity compensated by identity'9 or 'agreement in variety,'10 are found throughout Leibniz's works. Although all of these different phrasings have diverse contexts and slightly varied connotations, they all express a formal structure of united variety, which is harmony. Furthermore, this structure also entails perfection, as Leibniz states: 'the perfection a thing has is greater, to the extent that there is more agreement in greater variety, whether we observe it or not' (GW, p. 171). 11 According to this and other textual evidence, Gregory Brown argues that it would not be completely wrong to assume that for Leibniz harmony, beauty, and perfection are the same thing. 12 It is also worth noting that in the last part of the guoted passage Leibniz adds, 'whether we observe it or not', thus reinforcing the idea that perfection – and hence beauty – does not depend on subjective perception.

For Leibniz, the more united variety there is, the greater the harmony, ¹³ to which we would add, the greater the beauty. In this sense, beauty has degrees that are accounted for according to the objective measure of the two terms, unity

Gottfried Wilhelm Leibniz, Die philosophischen Schriften, 7 vols., ed. Karl Immanuel Gerhardt (Hildesheim: Olms, 1965), 7:87. Hereafter: GP; Philosophical Papers and Letters, 2nd ed., trans. and ed. Leroy. E. Loemker (Dordrecht: Reidel, 1969), 426. Hereafter: L.

Gottfried Wilhelm Leibniz, Sämtliche Schriften und Briefe (Darmstadt, Leipzig, and Berlin: Deutsche Akademie, 1923–), VI, 1:484. Hereafter: A, followed by series, volume, and page. See also A, VI, vol. 2, p. 283, and A, II, vol. 1, p. 74; L, p. 150.

Gottfried Wilhelm Leibniz, Briefwechsel zwischen Leibniz und Christian Wolf, ed. C. I. Gerhardt (Halle: Schmidt, 1869), 172. Hereafter: GW.

¹¹ Gottfried Wilhelm Leibniz, *Philosophical Essays*, trans. and ed. Roger Ariew and Daniel Garber (Indianapolis: Hackett, 1989), 233. Hereafter: *AG*.

Gregory Brown, 'Leibniz's Theodicy and the Confluence of Worldly Goods', Journal of the History of Philosophy 26 (1988): 577. Also, according to Strickland, Leibniz located all beauty in harmony. Lloyd Strickland, Leibniz Reinterpreted (London: Continuum, 2006), 104. A similar view is expressed in Phemister and Strickland, 'Leibniz's Monadological Positive Aesthetics', 1223. I believe that for Leibniz beauty is always grounded in harmony. This applies to every case, even for entities that might seem odd candidates for having harmony or being harmonious, such as God, religion, or scientific theory. In other words, if God, Christianity and Kepler's theory of planetary motion are beautiful, they are so in virtue of their being harmonious, that is, they unite or give order to many things. Unfortunately, I cannot elaborate further on this specific matter here, but the general principles behind this view will be established in this paper.

In the original Latin: 'Hinc patet quanto major sit <et varietas et> in varietate unitas, hoc majorem esse harmonium.' Gottfried Wilhelm Leibniz, *Textes inédits*, vol. 1, ed. Gaston Grua (Paris: Presses Universitaires de France, 1948), 12.

and variety. This measure is the formal structure of harmony and beauty, which means that anything that complies with it, no matter what its content, is beautiful. Something is beautiful when that something is constituted by many elements that are united, independently of any subjective judgement. For Leibniz, the world and nature were created by God following this measure, and therefore they are objectively beautiful. The question is, what are unity and variety? As we will see in the next section, for Leibniz, unity refers mainly to a principle of order. On the other hand, variety is almost always a multiplicity of things, representations, or properties.

Leibniz mentions unity in variety, mainly referring to an objective formula of beauty, based on the objective degree of the unity and variety, and therefore independent of subjective appreciation or taste. But this does not mean that beauty has no relation to the subject. According to Leibniz, whenever we perceive something that exhibits unity and variety, we experience pleasure. The relation between pleasure and beauty appears in Leibniz's works from his earliest texts onward. For example, in *Elements of Natural Law* (1670–71), he gives one of his first definitions of beauty: 'We seek beautiful things because they are pleasant, for I define beauty as that, the contemplation of which is pleasant' (*L*, p. 137). Years later, in a text entitled *Resumé of Metaphysics* (1697), Leibniz inverts the formula to define pleasure: 'An intelligent being's *pleasure* is simply the perception of beauty, order and perfection' (*GP*, vol. 7, p. 290). 16

In the following sentence from the same work, he relates this to completeness and order, explaining that pain, unlike pleasure, contains something disordered and fragmented. Nevertheless, in reality, all natural things are objectively ordered. Therefore, disorder is 'only relative to the percipient' (*GP*, vol. 7, p. 290; *MP*, p. 146): 'So when something in the series of things displeases us, that arises from a defect of our understanding. For it is not possible that every mind should understand

In his Discourse on Metaphysics (1686), Leibniz states that God created all things in accordance with the greatest harmony or beauty possible, following the rules of goodness and beauty (GP, vol. 4, p. 427; AG, p. 35).

In Leibniz's ontology, an individual thing is a degree of perfection or essence, which in turn is a variety of properties in harmony (GW, p. 172; GP, vol. 7, p. 304). Hence, even indivisible things (things not composed by other things), which cannot be a variety of things, present a variety of properties. On the other hand, the variety of representations pertains to the variety of a monad. Unfortunately, in the present paper I do not have the space to explain this matter further. Suffice it to say that every being in Leibniz's ontology presents a variety of any of these three elements; things (or parts), properties, or representations. Consequently, there is unity and variety or harmony in every entity, which means that even indivisible things can be considered beautiful by merit of being harmonious or having harmony. This applies also to God and other indivisible things that Leibniz calls beautiful.

Gottfried Wilhelm Leibniz, Philosophical Writings, trans. Mary Morris and G. H. R. Parkinson (London: Dent, 1973), 146. Hereafter: MP.

everything distinctly; and to those who observe only some parts rather than others, the harmony of the whole cannot appear' (*GP*, vol. 7, p. 290; *MP*, p. 147). Displeasure caused by a partial observation of nature is a recurrent theme in Leibniz's writings. It is often used to describe the problem of evil and dissonance in aesthetics. For example, in his work *On the Ultimate Origination of Things* (1697), Leibniz states: 'Look at a very beautiful picture, and cover it up except for some small part. What will it look like but some confused combination of colors, without delight, without art' (*GP*, vol. 7, p. 306; *AG*, p. 153). And again, in § 134 of his *Theodicy* (1710), he states:

we acknowledge, [...] that God does all the best possible, [...] when we see something entire, some whole complete in itself, and isolated, so to speak, among the works of God. Such a whole, shaped as it were by the hand of God, is a plant, an animal, a man. We cannot wonder enough at the beauty and the contrivance of its structure. But when we see some broken bone, some piece of animal's flesh, some sprig of a plant, there appears to be nothing but confusion. (*GP*, vol. 6, p. 188)¹⁷

The optimal way to appreciate the objective beauty of a natural thing is to contemplate it as a whole, since a partial observation might prevent us from grasping things without confusion.¹⁸ As I will explain later, these fragments, which by themselves show nothing but confusion, are what Leibniz considers to be dissonance.

It is precisely regarding the inclusion of dissonances that Leibniz's version of harmony diverges from the Pythagorean view. It is quite common to find some Pythagoreans expressing a certain kind of Manichaeism in their cosmology. For example, according to Archytas, harmony is a force aligned with order, reason, and consonance, which excludes disorder, irrationality, and dissonance. By contrast, Baroque thinkers, such as Johannes Kepler, Marin Mersenne, and Leibniz postulate a universe that includes an infinite number of things, among which a small number of them are dissonant. For them, these negative elements are beneficial parts of the harmonic whole, since they enlarge the beauty of the universe. In this context, Leibniz's inclusion of dissonance in the metaphysical dimension of harmony strictly correlates with the advances of music theory and

Gottfried Wilhelm Leibniz, Theodicy: Essays on the Goodness of God, the Freedom of Man and the Origin of Evil, trans. E. M. Huggard (LaSalle, IL: Open Court, 1985), 207. Hereafter: H.

In the quoted passage Leibniz refers to individual things as wholes that we should observe as such in order to grasp their beauty. It is worth mentioning that for Leibniz, these individual wholes subsume into a truly complete whole, which is the universe itself. This latter is greater in beauty, yet hidden from us, since it 'embraces too much for us to understand in our present state'. Gottfried Wilhelm Leibniz, Die Werke von Leibniz, 11 vols., ed. Onno Klopp (Hanover: Klindworth, 1864–84), 9:117; Leibniz on God and Religion, trans. Lloyd Strickland (London: Bloomsbury, 2016), 163.

¹⁹ Navon, *Pythagorean Writings*, 142.

practice in the seventeenth century. During this period the contrapuntal techniques started keeping vigilant control over dissonances that brought a new order to musical harmony.²⁰ For example, in his treatise *Harmonie universelle* (1636), Mersenne states that dissonances enter into harmony as accidents, since music consists mostly of consonances, yet dissonances provide consonances with grace and make them more pleasant.²¹ Mersenne himself establishes a connection between the legitimacy of musical dissonance and theological ideas, suggesting that in the same way that God draws good from evil and order from disorder, composers should mimic the divine order and dexterously use dissonances that make great ornaments to music.²² This remark closely resembles Leibniz's notion,²³ since both seem to embrace a theological view of harmony that agrees perfectly with the Baroque innovations in music.²⁴

Tim Carter, 'Renaissance, Mannerism, Baroque', in The Cambridge History of Seventeenth-Century Music, ed. Tim Carter and John Butt (Cambridge: Cambridge University Press, 2005), 7.

Marin Mersenne, *Traitez des consonances*, in *Harmonie universelle, contenant la théorie et la pratique de la musique*, vol. 2 (Paris: CNRS, 1965), 121. This is not only limited to Baroque music; Wölfflin makes a similar comment regarding Baroque architecture, which might help to illustrate this point: 'for the baroque is bold enough to turn the harmony into a dissonance by using imperfect proportions. As long as the work has any aesthetic meaning at all, its proportions cannot of course be governed entirely by such a dissonance. But harmoniously related proportions became fewer and less conspicuous. The simple harmony of Bramante's style suddenly seemed trivial and made way for more far-fetched relationships, more unnatural transitions that the untrained eye could easily mistake for complete absence of form.' Heinrich Wölfflin, *Renaissance and Baroque*, trans. Kathrin Simon (1888; London: Fontana, 1964), 67–68.

Mersenne, Traitez des consonances, 131. Furthermore, Descartes (with whom Mersenne carried on a now well-known correspondence) claims, from a physical and mathematical argument, that certain dissonances are essential to the tonal musical system. See René Descartes, 'Compendium musicae' (1618), in Œuvres de Descartes, vol. 10, ed. Charles Adam and Paul Tannery (Paris: Cerf, 1908), 128–29.

Compare this, for example, with the following passage from Leibniz's Theodicy, written some decades later: 'So the limitation or original imperfection of creatures brings it about that even the best plan of the universe cannot admit more good, and cannot be exempted from certain evils, these, however, being only of such a kind as may tend towards a greater good. There are some disorders in the parts which wonderfully enhance the beauty of the whole, just as certain dissonances, appropriately used, render harmony more beautiful' (GP, vol. 6, p. 383; H, p. 385).

Another example of this is found in Kepler, who debunked the Pythagorean idea that the planets make actual audible music and that their movement expresses harmony based on pure consonances. Peter Pesic, 'Earthly Music and Cosmic Harmony: Johannes Kepler's Interest in Practical Music, Especially Orlando di Lasso', Journal of Seventeenth-Century Music 11 (2005): § 3.19, http://www.sscm-jscm.org/v11/no1/pesic.html. In fact, Kepler states that the planets considered in musical combination would match modern figured music, which includes dissonances. Johannes Kepler, The Harmony of the World, trans. E. J. Aiton, Alistair M. Duncan, and Judith V. Field (1619; Philadelphia, PA: American Philosophical Society, 1997), 430. It is in this context that he made his famous ode to modern musicians, since their music is a more definite reproduction of celestial and divine harmony (ibid., 441).

The introduction of dissonance resulted in a heterogeneous and much more complex conception of the universe's harmony, where there are not only consonant values but also values that oppose harmony. As I argue later in the essay, this view allows the possibility of aesthetic judgements about nature failing to find delight in dissonance, hence creating a space for subjective aesthetic disagreement.

III. VARIETY AND DISSONANCE

For Leibniz, variety is one of the two essential aspects of beauty, harmony, and perfection. I claim that in Leibniz's writings it is possible to distinguish between two aspects or dimensions of variety, even though Leibniz himself does not make this distinction. I will call the first one 'quantitative variety'. This aspect can be found in definitions of beauty such as the one Leibniz offers in *On Wisdom*, where he states that beauty comes from unity in variety that occurs when 'the one rules many outside of itself and represents them in itself' (*GP*, p. 7:87; *L*, p. 426). 'Many' in this context is an expression of quantitative variety, since it is understood as a quantity of things, representations or properties.

On the other hand, there is another dimension of variety, which is expressed, for example, in what Leibniz calls the 'law of delight' (*laetitiae lex*): 'On that same principle it is insipid to always eat sweet things; sharp, acidic, and even bitter tastes should be mixed in to stimulate the palate [...] Pleasure does not derive from uniformity, for uniformity brings forth disgust and makes us dull, not happy: this very principle is a law of delight' (*GP*, vol. 7, p. 307; *AG*, p. 153). In this case, variety is not just a quantitative denomination, but also involves a notion of diversity that is qualitative. In other words, variety is a significant difference between two or more qualities, such as bitter and sweet. For lack of a better term, I will call this 'qualitative variety'.²⁵

It must be said that in Leibniz's metaphysics the difference between any two things is their different degrees of perfection. See GP, vol. 3, p. 343; Gottfried Wilhelm Leibniz, Leibniz and the Two Sophies: The Philosophical Correspondence, trans. and ed. Lloyd Strickland (Toronto: CRRS, 2011), 311. Therefore, at a metaphysical level, one thing is qualitatively differentiated from another by a quantitative measure – namely, degrees. In this sense, the term 'qualitative variety' is not the most suitable to express the metaphysically deep Leibnizian distinction between two things. Nevertheless, here I use 'qualitative variety' to denote a more colloquial meaning, which is the magnitude of the difference between two things, in contraposition to 'quantitative variety', as many things. In this sense, more qualitative variety means more difference between two or more things. Finally, it must also be added that both terms are expressions of different aspects of the term 'variety' and not mutually exclusive types of variety. In fact, for Leibniz, any quantitative variety implies qualitative variety. This because any quantitative multiplicity is composed of things that are qualitatively different from each other. Otherwise, quantitative multiplicity would be many of the same thing and this goes against Leibniz's principle of identity of indiscernible (I thank Edward Glowienka for pointing this out).

A high degree of qualitative variety can entail opposing values that disrupt or limit each other and at the same time augment the degree of the overall positive result. Leibniz often exemplifies this idea with music, more specifically with the figure of dissonance: 'the most distinguished masters of composition quite often mix dissonances with consonances in order to arouse the listener [...] so [...] the listener might feel all the more pleasure when order is soon restored' (*GP*, vol. 7, p. 306; *AG*, p. 153). Indeed, the idea of qualitative variety perhaps finds the most suitable representation in dissonance, since it is a value that is opposed to the very thing that it improves, harmony. For example, Leibniz writes: 'There are some disorders in the parts which wonderfully enhance the beauty of the whole, just as certain dissonances, appropriately used, render harmony more beautiful' (*GP*, vol. 6, p. 384; *H*, p. 385).

Although Leibniz does not explicitly define dissonance, he does say that consonances are expressed by a variety in which agreement or order is easily observable (GW, p. 171; AG, p. 233). It would be safe to assume that, conversely, dissonances occur when that agreement or order is not easily observable. Drawing from passage § 134 of the *Theodicy* guoted in section II, we could say that order is not easily observed when some parts do not appear immediately connected to a whole, like 'some broken bone', 'some piece of animal's flesh' or 'some sprig of a plant'. Leibniz points out that 'there appears to be nothing but confusion, unless an excellent anatomist observe it: and even he would recognize nothing therein if he had not before seen like pieces attached to their whole' (GP, vol. 6, p. 188; H, p. 207). In this case, the knowledge of the anatomist makes it possible to relate the dissonant piece of flesh to an ordered whole, that is, the animal. The anatomist can observe that the piece of flesh in fact complies with a broader order that was not so easily found in the piece by itself. Likewise, in the preceding example of a musical composition, Leibniz seems to suggest that dissonance is a momentary disorder, but further events in time provide the right context to incorporate it in a larger order. For example, at some point in a musical piece a certain interval might cause tension, sounding unrelated or inadequate in relation to the previous intervals, but as the piece progresses it can resolve the tension of that dissonant interval into a further consonant one. In this case the dissonance is eventually integrated within the harmonic pattern of the piece, justifying that moment of tension and inadequateness as an acceptable part of a whole. In this sense, it could be said that dissonances are a relative disorder or less immediate order in some parts of an overall ordered whole.²⁶

It is important to note that dissonance is not the same as incompossibility. While the latter refers to the impossibility of incorporating two or more things under the same general rule (see the next section), the former expresses a local or momentary mismatch between two or more closely related things, yet from a wider perspective those things do conform to the same general rule.

As these examples show, dissonances are produced by elements that introduce certain disorder by contrasting with their immediate context. Hence, dissonance entails a significant difference between things. This difference is also expressed in the relations those things establish with each other. Accordingly, there is a difference between the type of relations that a dissonant thing establishes with its immediate context (relative disorder) and the type relations that consonant things establish with each other (easily observed order). As I explain in section IV, the relations between things that determine their order or relative disorder are objective. Therefore, dissonances and the relative disorder among some elements are determined not by a perceiver, but by the objective relations among things. These relations can be objectively ordered or disordered (or some degree between these terms) with their immediate context. Hence, things can be objectively consonant or dissonant (or some degree between these terms).²⁷ In other words, dissonance and consonance are real properties of the universe.²⁸

In Leibniz's metaphysics, dissonance and evil share the same function; both are negative values that work against the main features of the world, that is, order and goodness, while introducing variety (*GP*, vol. 6, p. 384; *H*, p. 385). As is well known, Leibniz claims that the actual world is the most perfect possible world. The highest degree of perfection means the highest degree of harmony or unity and variety (*GW*, p. 70). Leibniz insists, however, that the harmony of the most perfect possible world possesses dissonance as well as evil. For him the inclusion of dissonance and evil is in fact better than their exclusion:

I believe that God did create things in ultimate perfection, though it does not seem so to us considering the parts of the universe. It's a bit like what happens in music and painting, for shadows and dissonances truly enhance the other parts, and the wise author of such works derives such a great benefit for the total perfection of the work from these particular imperfections that it is much better to make a place for them than to attempt to do without them.²⁹

I do not think that Leibniz would deny that there can be degrees of consonance and dissonance, in the same way that there are degrees of good and evil. If this is the case the difference between consonance and dissonance could be considered quantitative (that is, a matter of degrees). Yet for the sake of simplicity I will not consider here in detail the consequences of this variance of degrees.

When Leibniz defines consonance as a variety in which agreement or order is easily observable, I do not think that he means that the difference between consonance and dissonance is determined by a subjective observer. I think that 'easily observable' is a nominal definition and not a definition of the nature of consonance in itself. This means that it is not that consonances appear when an observer easily observes the order of some parts, but when some parts objectively have a significant degree of order the observer can easily observe that order. In the case of dissonance, that order is not so easily observed because there is a momentary disorder among parts.

²⁹ Leibniz, *Textes inédits*, 365–66; *AG*, p. 115.

Regarding evil, Leibniz explains: 'he [God] can banish evil, but that he does not wish to do so absolutely, and rightly so, because he would then banish good at the same time, and he would banish more good than evil' (*GP*, vol. 6, p. 435; *H*, p. 44).³⁰ In this sense, good and evil, or consonance and dissonance, seem to be inextricably interrelated in order to achieve a greater positive value.

The reason is that, for Leibniz, qualitatively different things grouped together result in a positive value (be it beauty or pleasure). In fact, more difference between things is more qualitative variety and more variety entails more harmony (as long as this variety is united). The inclusion of contrast in a certain order increases variety and in a group of mostly good and consonant things, evil and dissonance are the best diversifiers. For example, in his Confessio philosophi (1672-73), Leibniz justifies sins as contributions to the superior aesthetic value of harmony: '[God] would not be more pleased by the universal series were sins absent – in fact less, because this very harmony of the whole is rendered delightful by the dissonances which are interposed and compensated for in marvellous manner' (A, VI, vol. 3, p. 125).31 If, even for God, harmony is more delightful when it contains diversity, then it could be said that qualitative variety is objectively valuable.³² If this is the case, negative elements in a certain order inherently enhance beauty, since the best and most beautiful harmony requires in its constitution elements that work against it, such as dissonance, evil, or sin. In summary, a greater harmony is not without the variety introduced by dissonance. Therefore, our world, being the most perfect and harmonious, is not just composed of perfect consonances – things where order is easily observable - but also dissonances - things that exhibit a relative disorder - that bring about the degree of heterogeneity that results in greater beauty.

Yet, this does not mean that qualitative variety is an unconditional positive value, or that any kind of diversity enhances beauty. In a letter to Wolff (of 18 May 1715), Leibniz is clear about the superior amount of good needed for this to be so:

See also A, VI, vol. 4, p. 2322; Leibniz, *Leibniz on God*, 78, and *GP*, vol. 3, p. 33; Leibniz, *Leibniz on God*, 293.

³¹ Gottfried Wilhelm Leibniz, Confessio Philosophi: Papers Concerning the Problem of Evil, 1671–1678, ed. Robert C. Sleigh Jr. (New Haven, CT: Yale University Press, 2005), 49. Hereafter: CP.

This is also confirmed in *Confessio philosophi*, as Leibniz suggests that the fact that diversity – introduced by discord and apparent disorder – contributes to harmony is in virtue not of God's will, but of God's intellect, in the same way that three times three is nine; not because God wants it, but because it is in the nature of numbers themselves, which are, however, in God's intellect (see *A*, VI, vol. 3, pp. 122–23; *CP*, pp. 43–45). This means that the rule dictating that diversity enhances harmony is an eternal truth.

I don't know whether it can be said more absolutely that the unlimited is more perfect than the limited. The unlimited is a certain sort of chaos, but its observation brings on discomfort [molestia], not pleasure. If the divine intellect were to produce good things and bad in equal measure, it would remain unlimited, but it would not remain perfect. It is more perfect for the better things among the possibles alone to exist than for good and bad things to exist equally and indiscriminately. (GW, p. 171; AG, p. 233)

For qualitative variety to be a positive contribution to harmony, it must entail a certain ratio between a greater quantity of positive elements and a lesser quantity of negative ones. Negative elements must also be precisely located in specific relation to good ones. This order must be able to achieve the harmonic resolution of dissonances within the unity of a whole.

In Confessio philosophi, Leibniz explains that beauty is achieved with the reduction of the apparent and temporal disorder (that is, dissonance) between things. As he states, harmony is greatest in the case where it is a unity of the greatest number of things disordered in appearance and reduced, unexpectedly, by some wonderful ratio to the greatest symmetry [concinnitatem]' (A, VI, vol. 3, pp. 122–23; CP, p. 45). In this sense, harmony – and hence beauty – reaches its peak at the moment when the dissonances are harmonically reduced. Later in the same work, Leibniz applies this principle to art, calling it 'the rule of art': 'it is with the essence of harmony that the discordant diversity is redeemed wonderfully by a seemingly unexpected unity. This is taken as a rule of art not only by those who write songs but also by those who write stories concocted to delight, which are called novels' (A, VI, vol. 3, p. 147; CP, p. 103). The moment when dissonances are suddenly redeemed and order is restored relates to the aesthetical supremacy of the whole in Leibniz's philosophy. Thus, only a whole exhibits the true beauty of something, since a whole is associated with the moment of the redemption of dissonance and the highest peak of harmony, that is, when elements in relative disorder within their immediate context are shown to be in fact an ordered part of a bigger whole. Hence, beauty is not merely quantitative multiplicity or qualitative diversity, but also the resolution of dissonances in certain complete final unity. Beauty is therefore realized in the culmination of the formal structure of unity in variety.

IV. UNITY AND AGGREGATES

Beauty as harmony has been defined here with a formula involving two terms: on the one side 'unity' and on the other 'variety'. This formula is equivalent to several other expressions coined by Leibniz, such as 'diversity compensated by identity' (diversitas identitate compensate), 'variety reduced to unity' (varietas reducta in unitatem; GP, vol. 1, p. 73; L, p. 150), 'unity in plurality' (Einigkeit in der

Vielheit; GP, vol. 8, p. 87; L, p. 426), and 'agreement or identity in variety' (consensus vel identitas in varietate; GW, p. 172; AG, p. 233). A careful comparison of these phrases, however, highlights the following problem. Although the terms 'variety', 'plurality', and 'diversity' refer more or less to the same idea, the terms on the other side of the formula ('unity', 'identity', or 'agreement') are at odds with each other. 'Unity' and 'identity' are not evidently equivalent to 'agreement' in the same way that 'multiplicity' and 'variety' are equivalent to each other. In this sense, Leibniz's concept of unity cannot be limited to oneness or union, but should also include identity and agreement. In order to embrace all of the significations that unity involves in reference to harmony and beauty, a more general concept is required. I suggest that unity must be understood as a principle of order. This is a wide notion that applies to laws, rules, or designs, or any other principle that induces order such as organization, coordination, or direction. Principles of order not only produce unities, and constitute identities and the agreement of their internal multiplicities, but also are the unity that the postulated formula of harmony/beauty expresses.33

We can see this notion of unity as a law or rule in the unity of the world and its relation to individuals. For Leibniz, each possible world, including the actual world, is a closed set of things that are compossible between each other. Things are compossible between each other when they share a general law. All things that pertain to the same world therefore share the general law of that world.³⁴ As

Carlin suggests that for Leibniz harmony is a certain kind of order; therefore not just any order is harmony. Laurence Carlin, 'On the Very Concept of Harmony in Leibniz', Review of Metaphysics 54 (2000): 103. Though it is an interesting conjecture and a possible interpretation of the problem, I do not think that the author offers enough convincing textual evidence to discard the alternative view - namely, that any ordered multiplicity is harmony. Indeed, I think that it is safer to assume that for Leibniz every ordered multiplicity is harmony. This does not exclude the fact there could be different degrees of order, and therefore different degrees of harmony or different types of unity. This is a contested view. There are two main approaches to Leibniz's theory of possible worlds and compossibility, the 'logical' and the 'lawful' approach. Margaret Wilson, 'Compossibility and Law', in Causation in Early Modern Philosophy: Cartesianism, Occasionalism, and Preestablished Harmony, ed. Steven Nadler (University Park: Pennsylvania State University Press, 1993), 119–33. The former states that logical compossibility in this case is the absence of contradiction between the content of two or more complete concepts in a determinate possible world. According to this interpretation, a principle of order, as a principal design, seems superfluous and secondary, since the unity of the world is produced almost automatically by the inherent compossibility of certain individual things. See Benson Mates, 'Leibniz on Possible Worlds', in Leibniz: A Collection of Critical Essays, ed. Harry G. Frankfurt (Garden City, NY: Doubleday, 1972), 335-64, and Nicholas Rescher, Leibniz: An Introduction to His Philosophy (Lanham, MD: University Press of America, 1979). On the other hand, the 'lawful' approach considers that possibles are compossible in a possible world when they conform to the same law, rule, or principle of order in general. According to the 'lawful' approach, compossibility is not mere logical consistency but consistency

Leibniz explains it, 'each possible individual of any world contains in its concept the laws of its world', which means that 'each individual substance of this universe expresses in its concept the universe into which it enters' (*GP*, vol. 2, pp. 40–41). As Leibniz states:

I will add that I think there is an infinity of possible ways in which to create the world, according to the different designs which God could form, and that each possible world depends on certain principal designs or purposes of God [desseins principaux ou fins de Dieu] [...] or certain laws of the general order of this possible universe with which they are in accord and whose concept they determine, as they do also the concepts of all individual substances which must enter into this same universe. (*GP*, vol. 2, p. 51; *L*, p. 333)

Each world has a unique principle of order framed within a more general structure of possible logical combinations. This principle, law, or design defines the particularity of a possible world, since there is an individual law of order for each world. The principle of order also determines certain individuals' inclusion in, or exclusion from, each possible universe, and brings them into accord – since, as we have seen, the compossibility of individuals is the result of their conforming to a shared principle of order. Any world is therefore a unity, with identity and agreement, because of its design or law. This design is an objective principle of order, since it is given by God independently of our subjective appreciation. In this way the whole world presents one principle of order as unity.

But in Leibniz's ontology, unifying principles of order can be found at any level where it is possible to designate unities, from the set of all possible worlds, through each of these worlds, to any individual that inhabits those worlds. The world's general unity, in turn, includes (unites or orders) other intra-worldly principles of order or sub-unities that are also objective. These sub-unities are of two types: Laws of nature and substances. Laws of nature are principles of order for the variety of phenomena. Natural laws and the general design of the world work in a similar way; both allow things or phenomena to be compossible by

under a general law. See Bertrand Russell, *A Critical Exposition of the Philosophy of Leibniz*, 2nd ed. (London: Allen & Unwin, 1937), 37; lan Hacking, 'A Leibnizian Theory of Truth', in *Leibniz: Critical and Interpretive Essays*, ed. Michael Hooker (Minneapolis: University of Minnesota Press, 1982), 193; Gregory Brown, 'Compossibility, Harmony, and Perfection in Leibniz', *Philosophical Review* 96 (1987): 196. Unfortunately, I do not have space here to explore this discussion in detail but it should suffice to say that here I side with the latter approach. For recent works concerning this matter, see Gregory Brown and Yual Chiek, eds., *Leibniz on Compossibility and Possible Worlds* (Cham: Springer, 2016).

³⁵ Gottfried Wilhelm Leibniz, The Leibniz-Arnauld Correspondence, ed. and trans. Stephen Voss (New Haven, CT: Yale University Press, 2016), 65.

conforming to a common principle of order.³⁶ In other words, natural laws are specific principles of order or unities subordinated to the general principle of the order of the world. From the point of view of God's understanding, natural laws are hypotheses that explain the complexity of natural phenomena. As Leibniz states: 'God has chosen that world which is the most perfect, that is to say, which is at the same time the simplest in hypotheses and the richest in phenomena' (*GP*, vol. 4, p. 431; *L*, p. 306). Hypotheses are unities of reason that order and unite variety. On the other hand, individual substances and corporal substances are also objective unities grounded in their own principles of order subordinated to the general unity of the world. Hence, individual substances can also be understood as a law, programme, or rule that ground them as unities.³⁷ In all of these cases there is an objective principle of order that unites variety in harmony, therefore guaranteeing beauty.

In contrast to the objective unity of the world and the other ones described here, there is another type of unity: the unity of aggregates. For Leibniz, 'an aggregate is nothing other than all the things from which it results taken together, which clearly have their unity only from a mind, on account of those things that they have in common, like a flock of sheep' (*GP*, vol. 2, p. 256).³⁸ Although Leibniz never explicitly considers the relation between aggregates and beauty, it is clear that aggregates express the same formula of beauty and harmony: unity in variety.

Aggregates are not objective unities, since their unity is found in subjective ideas. This unity by aggregation is not, however, radically created by the mind *ex nihilo*. Paul Lodge correctly claims that although 'aggregates exist only if a mind exists and apprehends the relation that constitutes the essence of that aggregate', it is still necessary to have 'things standing in those

³⁶ At times, Leibniz seems to suggest an equivalence between the laws of nature and the general law or unity of the world. But a closer reading shows that they are different. Although laws of nature also serve as factors for compossibility, they are not the general law of the world that I have described here as the unity of the world as a whole. For Leibniz, the general law of the world includes elements that the natural laws do not include. Miracles are an example of this kind of element, since a miracle conforms to the general law of the world, although 'the particular maxims which are called laws of nature may not always be observed in it' (*GP*, vol. 2, p. 41; Leibniz, *Leibniz-Arnauld Correspondence*, 67).

Here I haven't the space to explain this idea further. For the relation of Leibniz's notion of individuals and rules, see Ohad Nachtomy, Possibility, Agency, and Individuality in Leibniz's Metaphysics (Dordrecht: Springer, 2007). For the relation between monads and the laws of a series, see John Whipple, 'The Structure of Leibnizian Simple Substances', British Journal for the History of Philosophy 18 (2010): 379–410.

³⁸ Gottfried Wilhelm Leibniz, The Leibniz-De Volder Correspondence: With Selections from the Correspondence between Leibniz and Johann Bernoulli, ed. and trans. Paul Lodge (New Haven, CT: Yale University Press, 2013), 275.

relations^{2,39}. An aggregate therefore also depends on objective substances that can be apprehended as related by the mind. As Leibniz states: 'this unity of the idea of an aggregate is a very genuine one; but fundamentally we have to admit that this unity that collections have is merely a respect or a relation, whose foundation lies in what is the case within each of the individual substances taken alone'. Furthermore, an aggregate's unity depends not only on objective substances, but also on their relations (*GP*, vol. 2, p. 100). These relations are not mind dependent, since they do have an ontological base in the individual concept of substances. For example, Leibniz writes:

the concept of the individual substances contains all its events and all its denominations, even those that are commonly called extrinsic (that is to say, the ones that belong to it only in virtue of the general connection of things and because it expresses the whole universe in its manner), since there must always be some foundation for the connection of the terms of a proposition, which must be found in their concepts. (*GP*, vol. 2, p. 56)⁴²

Relations or extrinsic denominations are in the individual substance; they are not a mere product of our minds.⁴³

That said, as Lodge aptly puts it, 'aggregates are very cheap', since they come into existence with an extraordinary facility.⁴⁴ Yet this is to be expected from Leibniz's harmonically interrelated world, where every individual thing is related to every other (*AG*, p. 100). This allows the mind to discover connections everywhere and, hence, to group together individuals almost at will. Following this line of argumentation, aggregates are not just based on relations established by the subject's mind (because relations exist objectively in substances), but rather are the product of a mental process of selecting certain relations (because objectively everything is related with everything), where the mind includes some and excludes others, following a determinate principle of order such as a criterion given by an idea.

³⁹ Paul Lodge, 'Leibniz's Notion of an Aggregate', *British Journal for the History of Philosophy* 9 (2001): 473.

⁴⁰ Gottfried Wilhelm Leibniz, New Essays on Human Understanding, 2nd ed., trans. and ed. Peter Remnant and Jonathan Bennett (Cambridge: Cambridge University Press, 1996), 146.

Leibniz, Leibniz-Arnauld Correspondence, 207.

⁴² Ibid., 111.

This is a contested view. Some commentators, including Lodge, take relations to be subjective and not features of the real world (Lodge, 'Leibniz's Notion of an Aggregate', 477). Others have argued the opposite: relations are objective features of substances. See, for example, Hidé Ishiguro, *Leibniz's Philosophy of Logic and Language*, 2nd ed. (Cambridge: Cambridge University Press, 1990), 107, and Nachtomy, *Possibility, Agency, and Individuality*, 118. Here I agree with the latter view. There is also a third view, which states that relations are mind dependent, but objective nevertheless, since they are grounded in God's mind. See Carlin, 'On the Very Concept', 108.

Lodge, 'Leibniz's Notion', 473–74.

It is precisely in this process of selection that the possibility of subjective dissent takes place. As we have seen, beauty is harmony as unity in variety. Regarding variety, the world objectively contains not only consonant elements (that is, similar elements in easily observable order), but also dissonant ones (that is, contrasting elements in relative disorder). Thus, the variety offered by the world is objectively heterogeneous; different things relate to each other with different degrees of order. On the other hand, the subjective aspect of aggregates refers only to the capacity to provide a principle of order or rather unity. The mind is quite versatile in providing uniting ideas, so in principle it is possible to unite (include and exclude) almost any relation of elements offered by nature. Yet, to unite, this subjective unity must select elements from an objectively given diversity. For Leibniz, when we are able to properly observe an objectively united whole – for example, natural individual beings or corporeal substances -, we should not fail to notice that the dissonant elements and relations are finally harmonically resolved. Yet, since aggregates can unite partial chunks of reality, according to subjective criteria of order, it is possible that from the very beautiful picture that is the whole, we unite only 'some confused combination of colors, without delight, without art' (GP, vol. 7, p. 306; AG, p. 153). This happens when an idea unites as one a 'series of things [which] displeases us', since we are observing 'only some parts rather than others', and hence 'the [objectively given] harmony of the whole cannot appear' (GP, vol. 7, p. 290; MP, p. 147).

Without qualitative variety and dissonance everything would be similar to every other thing and everything would relate with the same degree of order to every other thing. In this scenario aggregates could only create harmonies with homogeneous things and relations, since ideas would find only similar elements to unite. There would thus be no significant differences between aesthetic judgements. On the contrary, the presence of dissonance in the world allows ideas to form aggregates with different degrees of consonant and dissonant elements. Aggregates, as subjectively united series, might be able to resolve dissonances harmonically with different degrees of success, generating different aesthetic judgements about the world or parts of it.⁴⁵ For example, some

All of these judgements could as well have been made about nature in general or even the same specific part of the world. This is because aggregates' unities are only formal principles of order and can overlap with each other over the same thing. For example, a traditional painting is a unity because we assume that everything within the frame is one individual painting. Yet we could consider our ideas of formal artistic properties to be another level of uniting ideas. In this case, our ideas and perceptions about the composition of the figures, the relation of the colours, and the meaning of the iconography would constitute different overlapping principles of order over the same object, thus creating different unities.

aggregates might include a specific balance between consonant and dissonant elements, which fails to resolve dissonances, resulting in a negative aesthetic judgement about certain aspects of the world. Others could include mostly consonant elements, lacking in variety, and thus encountering an aesthetically dull nature. In extreme cases, some might find only discordant elements, and experience pure displeasure and ugliness.

These cases are judgements of incomplete series of elements, grounded in ideas that do not reach the same unity in variety, which is offered by an objectively beautiful world composed of natural individual unities. Nonetheless, for Leibniz, these divergent judgements are to be expected from ideas generated by finite minds that have only a limited apprehension of the world (GP, vol. 7, p. 290; MP, p. 147). These unities show how flexible the unity per aggregation is and that Leibniz's view explains divergent aesthetic judgements. Leibniz's philosophy, however, allows and pretty much promotes the possibility of an encounter between subjective unity and objective unity. As we have seen, the objective unity of the world includes several objective sub-unities, including those of natural individual beings and natural laws. There are thus an almost infinite number of objective principles of order cohabitating within each unity. It is therefore not uncommon for the mind to grasp or conceive of a unity that coincides with these natural unities. An example of beauty in these circumstances would be the beauty of scientific theories in the natural sciences.46

Finally, it must be said that this does not mean that for Leibniz beauty is subjective. Beauty is always objective for three reasons. First, the rules with which a unity per aggregation must comply to reach beauty are objective; they are in God's understanding (for example, unity, variety, and wholeness; *A*, VI, vol. 3, pp. 122–23). The formal structure of beauty is therefore always objective. Second, the relations that are united by an idea must be founded on individual substances, that is, objective reality. Third, for Leibniz, beauty is a property of the object, since, even if we are able to establish arbitrary unities and hence

An adequate scientific theory is an idea that provides unity to a variety of phenomena. If true, this idea coincides with an objective natural law; consequently, the idea and the law describe the same unity. In this case we discover not only laws of nature, but also the beauty of the world. As Leibniz says, mathematics and their application to the sciences help us to discover the beauty of the world (A, I, vol. 7, pp. 49–50; Leibniz, Leibniz and the Two Sophies, 91–92). For a more detailed account of Leibniz's view on the beauty of mathematics, geometry, physics, and the laws of nature, see Breger, 'Die mathematisch-physikalische Schönheit'. For an interesting account of Leibniz's aesthetics of nature, metaphysics, and natural science in comparison with Carlson's positive aesthetics, see Phemister and Strickland, 'Leibniz's Monadological Positive Aesthetics'

create 'new objects' (even as ideas), these objects have being in the mind of God even before we conceive them, since for Leibniz every conceivable thing has being in God's intellect. In other words, any conceivable unity already has being in the mind of God.

V. CONCLUSION

As I have sought to demonstrate in this paper, the given interpretation of Leibniz's philosophy provides an explanation for subjective dissent between aesthetic judgements through his notions of aggregates and dissonances. This is so even though he upholds the traditional objective position that beauty is harmony.

Although Leibniz did not offer an explicit account of the relation of aggregates and aesthetics, I have suggested here that aggregates respond to the formula of unity in variety and therefore replicate the structure of beauty. In this context, the harmony of aggregates consists in a subjective idea that unites an objectively given variety according to its own principle of order. In this way aggregates are characterized as harmonies that differ from the objectively given harmonies of nature, since the latter have objective unity. Furthermore, aggregates' harmonies differ not only from nature's objective harmonies, but also from each other. The result is subjective dissent among aesthetic judgements.

Yet, in order to explain subjective dissent, something else is needed. As I have pointed out, the possibility of subjective dissent is given by a very specific aspect of Leibniz's metaphysics: a qualitative notion of variety that exhibits dissonances. Nature's beauty is not just the unity of many different things, but also a unity of things with contrasting values that produce dissonance. Nonetheless, for Leibniz, the tension introduced by dissonances in the universe is harmonically resolved in the unity of the whole, resulting in an objectively beautiful world. The same result is achieved in all of the objective unities that compose the universe.

Nevertheless, regarding aggregates this can go a different way. Subjective unities do not always reach this final harmonic resolution of dissonances. Aggregates can be unities of many different combinations of elements. Some unities successfully resolve their dissonant elements, while others do not do so quite so successfully or at all. The result is divergence among subjective judgements.

In this way, Leibniz offers a philosophical view that explains why there are different aesthetic judgements about nature. These different judgements are the consequence of a mismatch between subjective unities and objective natural unities. When this mismatch is too drastic, we might perceive less beauty than what nature really has to offer (or even none at all). In this case, subjective

aesthetic judgements are characterized as a sort of limitation of our capacity to grasp an objective unity. Yet, for Leibniz, if we succeed in matching our subjective unities with objective ones that exist in nature we should not fail to encounter the full extent of nature's beauty.

Carlos Portales
Department of Philosophy, University of Edinburgh,
Dugald Stewart Building, 3 Charles Street, EH8 9AD Edinburgh, Great Britain
carlosportalesq@gmail.com

BIBLIOGRAPHY

PRIMARY SOURCES

- Leibniz, Gottfried Wilhelm. *Briefwechsel zwischen Leibniz und Christian Wolf*. Edited by C. I. Gerhardt. Halle: Schmidt, 1860. Abbreviated: *GW*.
- -----. Confessio Philosophi: Papers Concerning the Problem of Evil, 1671–1678. Translated and edited by Robert C. Sleigh Jr. New Haven, CT: Yale University Press, 2005. Abbreviated: CP.
- -----. *Leibniz and the Two Sophies: The Philosophical Correspondence*. Edited and Translated by Lloyd Strickland. Toronto: CRRS, 2011.
- -----. *The Leibniz-Arnauld Correspondence*. Translated and edited by Stephen Voss. New Haven, CT: Yale University Press, 2016.
- -----. The Leibniz-De Volder Correspondence: With Selections from the Correspondence Between Leibniz and Johann Bernoulli. Translated and edited by Paul Lodge. New Haven, CT: Yale University Press, 2013.
- -----. *Leibniz on God and Religion: A Reader*. Translated and edited by Lloyd Strickland. London: Bloomsbury, 2016.
- -----. *New Essays on Human Understanding*. 2nd ed. Translated and edited by Peter Remnant and Jonathan Bennett. New York: Cambridge University Press, 1996.
- -----. *Philosophical Essays*. Translated and edited by Roger Ariew and Daniel Garber. Indianapolis: Hackett, 1989. Abbreviated: *AG*.
- -----. *Philosophical Papers and Letters*. 2nd ed. Translated and edited by Leroy. E. Loemker. Dordrecht: Reidel, 1969. Abbreviated: *L*.
- -----. *Philosophical Writings*. Translated and edited by Mary Morris and G. H. R. Parkinson. London: Dent, 1973. Abbreviated: *MP*.
- -----. *Die philosophischen Schriften*. 7 vols. Edited by Karl Immanuel Gerhardt. Hildesheim: Olms, 1965. Abbreviated: *GP*.
- -----. Sämtliche Schriften und Briefe. 8 series. Darmstadt, Leipzig, and Berlin: Deutsche Akademie, 1923–. Abbreviated: A.
- -----. *Textes inédits*. Vol. 1. Edited by Gaston Grua. Paris: Presses Universitaires de France, 1948.
- -----. Theodicy: Essays on the Goodness of God, the Freedom of Man and the Origin of Evil.

 Translated by E. M. Huggard. LaSalle, IL: Open Court, 1985. Abbreviated: H.
- -----. *Die Werke von Leibniz*. 11 vols. Edited by Onno Klopp. Hanover: Klindworth, 1864–84.

SECONDARY SOURCES

- Augustine. 'From *On Order*.' In *Greek and Roman Aesthetics*, translated and edited by Oleg V. Bychov and Anne Sheppard, 201–5. New York: Cambridge University Press, 2010.
- Aquinas, Thomas. Scriptum super libros sententiarum magistri Petri Lombardi. Edited by Pierre Mandonnet and Marie-Fabien Moos. Paris: Lethielleux, 1929.
- Barnouw, Jeffrey. 'The Beginnings of "Aesthetics" and the Leibnizian Conception of Sensation.' In *Eighteenth-Century Aesthetics and the Reconstruction of Art*, ed. Paul Mattick, Jr., 52–95. Cambridge: Cambridge University Press, 1993.
- Beiser, Frederick. *Diotima's Children: German Aesthetic Rationalism from Leibniz to Lessing*. Oxford: Oxford University Press, 2009.
- Breger, Herbert. 'Die mathematisch-physikalische Schönheit bei Leibniz.' Revue internationale de philosophie 48 (1994): 127–40.
- Brown, Clifford. 'Leibniz and Aesthetic.' *Philosophy and Phenomenological Research* 28 (1967): 70–80.
- Brown, Gregory. 'Compossibility, Harmony, and Perfection in Leibniz.' *Philosophical Review* 96 (1987): 173–203.
- -----. 'Leibniz's Theodicy and the Confluence of Worldly Goods.' *Journal of the History of Philosophy* 26 (1988): 571–91.
- Brown, Gregory, and Yual Chiek, eds. *Leibniz on Compossibility and Possible Worlds*. Cham: Springer, 2016.
- Buzon, Frédéric de. 'L'Harmonie: Métaphysique et phénomenalité.' Revue de métaphysique et de morale 98 (1995): 95–120.
- Carlin, Laurence. 'On the Very Concept of Harmony in Leibniz.' *Review of Metaphysics* 54 (2000): 99–125.
- Carter, Tim. 'Renaissance, Mannerism, Baroque.' In *The Cambridge History of Seventeenth-Century Music*, edited by Tim Carter and John Butt, 1–20. Cambridge: Cambridge University Press, 2005.
- Colorni, Eugenio. 'L'Estética di Leibniz.' Rivista di filosofia 30 (1939): 66-81.
- Descartes, René. 'Compendium musicae.' 1618. In Œuvres de Descartes, vol. 10, edited by Charles Adam and Paul Tannery, 79–150. Paris: Cerf, 1908.
- Franke, Ursula. 'Von der Methaphysik zur Ästhetik: Der Schritt von Leibniz zu Baumgarten.' In supplement, *Studia Leibnitiana*, no. S14 (1975): S229–S40.
- Galeffi, Romano. 'À propos de l'actualité de Leibniz en esthétique.' In Akten des II. Internationalen Leibniz-Kongresses, 3:217–28. Wiesbaden: Steiner, 1975.
- Grube, George. 'Plato's Theory of Beauty.' Monist 37 (1927): 269-88.
- Hacking, Ian. 'A Leibnizian Theory of Truth.' In *Leibniz: Critical and Interpretive Essays*, edited by Michael Hooker, 185–95. Minneapolis: University of Minnesota Press, 1982.
- Ishiguro, Hidé. *Leibniz's Philosophy of Logic and Language*. 2nd ed. Cambridge: Cambridge University, 1990.
- Kepler, Johannes. *The Harmony of the World*. 1619. Translated by E. J. Aiton, Alistair M. Duncan, and Judith V. Field. Philadelphia, PA: American Philosophical Society, 1997.
- Levin, Flora. *Greek Reflections on the Nature of Music*. Cambridge: Cambridge University Press, 2009.
- Lodge, Paul. 'Leibniz's Notion of an Aggregate'. British Journal for the History of Philosophy 9 (2001): 467–86.
- Mates, Benson. 'Leibniz on Possible Worlds.' In *Leibniz: A Collection of Critical Essays*, edited by Harry G. Frankfurt, 335–64. Garden City, NY: Doubleday, 1972.
- Mersenne, Marin. *Traitez des consonances*, in *Harmonie universelle, contenant la théorie et la pratique de la musique*, vol. 2, 1–140. 1636. Paris: CNRS, 1965.

- Nachtomy, Ohad. *Possibility, Agency, and Individuality in Leibniz's Metaphysics*. Dordrecht: Springer, 2007.
- Navon, Robert, ed. *The Pythagorean Writings: Hellenistic Texts from the 1st Cent. B.C. 3rd Cent. A.D.* Translated by Kenneth Guthrie and Thomas Taylor. New York: Selene Books, 1986.
- Ortiz, José María. 'La justificación del mal y el nacimiento de la estética: Leibniz y Baumgarten'. *Anuario Filosófico* 21 (1988): 151–57.
- Pesic, Peter. 'Earthly Music and Cosmic Harmony: Johannes Kepler's Interest in Practical Music, Especially Orlando di Lasso'. *Journal of Seventeenth-Century Music* 11 (2005). https://sscm-jscm.org/v11/no1/pesic.html.
- Phemister, Pauline, and Lloyd Strickland. 'Leibniz's Monadological Positive Aesthetics'. *British Journal for the History of Philosophy* 23 (2015): 1214–34.
- Rescher, Nicholas. *Leibniz: An Introduction to His Philosophy*. Lanham, MD: University Press of America, 1979.
- Russell, Bertrand. A Critical Exposition of the Philosophy of Leibniz. 2nd ed. London: Allen & Unwin, 1937.
- Strickland, Lloyd. Leibniz Reinterpreted. London: Continuum, 2006.
- Villanueva, Javier. 'Reflexiones sobre la estética de Leibniz.' *Anuario Filosófico* 17 (1984): 137–51.
- Whipple, John. 'The Structure of Leibnizian Simple Substances.' British Journal for the History of Philosophy 18 (2010): 379–410.
- Wilson, Margaret. 'Compossibility and Law.' In Causation in Early Modern Philosophy: Cartesianism, Occasionalism, and Preestablished Harmony, edited by Steven Nadler, 119–33. University Park: Pennsylvania State University Press, 1993.
- Wölfflin, Heinrich. *Renaissance and Baroque*. 1888. Translated by Kathrin Simon. London: Fontana, 1964.