# Musical Works as Structural Universals

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Abstract: In the ontology of music the Aristotelian theory of musical works is the view that musical works are immanent universals. The Aristotelian theory (hereafter Musical Aristotelianism) is an attractive and serviceable hypothesis. However, it is overlooked as a genuine competitor to the more well-known theories of Musical Platonism and nominalism. Worse still, there is no detailed account in the literature of the *nature* of the universals that the Aristotelian identifies musical works with. In this paper, I argue that the best version of Musical Aristotelianism identifies musical works with structural universals. I first motivate the view by outlining its explanatory benefits. I then argue that Musical Aristotelianism is preferable to Musical Platonism and present a novel account of musical works as structural universals by developing D.M. Armstrong's theory of structural universals. I discuss the consequences of Musical Aristotelianism with respect to on-going issues in debates about musical works and defend the view against an influential objection, concluding that Musical Aristotelianism is a genuine competitor in debates about the nature of musical works.

## Introduction

One central debate in the ontology of music centres on, what Julian Dodd calls, the categorial question: 'the issue of which ontological category works of music belong to' (Dodd 2007, 1). According to the Aristotelian theory of musical works, works of music belong to the ontological category of universal. For the Aristotelian, universals are immanent i.e., universals exist 'in' their instances, are wholly present in their instances, and do not subsist eternally in some other realm. Thus, musical works, on this view, are immanent universals. Let us call this theory *Musical Aristotelianism*. In this paper, I argue for and defend a novel version of Musical Aristotelianism according to which musical works are structural universals.<sup>1</sup>

Musical Aristotelianism has been overlooked as a genuine competitor to the more well-known theories of Musical Platonism and nominalism.<sup>2</sup> According to Musical Platonism, musical works belong to the ontological category of type such that a performance of

<sup>&</sup>lt;sup>1</sup> I restrict my discussion to classical music and the works that musicians perform based on a score written in the tradition of classical Western music. Jazz, electronic music, plainsong, non-western music, etc are put to one side. The theory to be expounded and defended here could take into account these other traditions of music, but I do not have space to consider such applications. Also, I accept as a working assumption the meta-ontological position that debates about the ontology of music are non-verbal, objective, and legitimate. For discussion of meta-ontology in the metaphysics of music, see (Bartel 2011; Ridley 2003).

<sup>&</sup>lt;sup>2</sup> Defenders of Musical Platonism include (Dodd 2007; Howell 2002; Kivy 1983; Levinson 1980; Trivedi 2002; Wollheim 1980; Wolterstorff 1980). Defenders of Musical nominalism include (Goodman 1968) and more recently (Caplan & Matheson 2004; Tillman 2011).

a work of music is a token of some type. The main disagreement among Musical Platonists concerns the nature of types – whether musical works are eternal types (Dodd 2000) or creatable indicated types (Howell 2002; Trivedi 2002; Walters 2013). Let us call the former view *extreme* Musical Platonism and the latter *moderate* Musical Platonism.

Musical Platonism has a broader meaning than this type-theoretic interpretation. A Musical Platonist could identify musical works with a Platonic entity that is not a type. They might say a musical work is a Platonic universal. On this Platonic variant, musical works are not types. The relevant contrast, then, between Musical Platonism and Musical Aristotelianism is that musical works, according to the Platonist, are *transcendental* in the sense that an entity lacks spatial location, is eternal, acausal, or immutable, etc, whereas the Aristotelian says that musical works are *immanent*.<sup>3</sup>

The Musical nominalist provides an account of musical works without positing Platonic types or universals (whether transcendental or immanent). Traditionally, Musical nominalism was understood as the view that musical works are classes of performances (in the same way the nominalist more generally says a property is a class of individuals). More recently, Musical nominalism has taken on a more materialist flavour, without any reference to classes. Ben Caplan and Carl Matheson (2004) have suggested that musical works are mereological fusions of performances and (perhaps) the score, score-copies, recordings, and the compositional activity of the composer; they have styled this theory as a form of perdurantism (Caplan & Matheson 2006).<sup>4</sup> Chris Tillman (2011) has argued that musical works are multiply locatable concrete objects such that a musical work is wholly located at its manifestations; the work coincides with its manifestations. The relevant contrast between Musical nominalism and Musical Aristotelianism is that, according to Musical nominalism, musical works are particulars, whereas the Aristotelian says that they are universals.<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> The word 'abstract' is often introduced to characterise universals and types. However, I do not think the term has any stable meaning that renders it distinctively useful. Hence, I do not describe immanent universals as abstract, nor do I describe the Platonist's types or universals as abstract. Terminology can naturally cloud the issue. For example, Nemesio Garcia-Carril Puy (2020) classifies Levinson's initiated types as one version of Musical Aristotelianism, whereas on my classification Levinson is a Musical Platonist. Most philosophers in this debate label Levinson's view as one version of Platonism.

<sup>&</sup>lt;sup>4</sup> For a stage-theoretic perdurantist view, see (Moruzzi 2018), wherein it is argued that musical works are individual performances.

<sup>&</sup>lt;sup>5</sup> In this paper, I focus on realist theories about musical works. This is partly due to space but also because realism is the common trend in analytic philosophy. For an illuminating and compelling defence of musical idealism, see (Cray & Matheson 2017). In my view, musical idealism is untenable because it does not do justice to the 'material' that ideas are manifested in as regards aesthetic appreciation and contemplation. I owe this criticism to Samuel Alexander (1925). I am doubtful that musical idealism can be extended to other art forms such as architecture and sculpture, for in these forms of art the material is of equal importance to the idea that is manifested in it. By contrast, Musical Aristotelianism can be extended to other art forms. My focus on realist theories is also in tension with fictionalism about musical works (Kania 2012; Killin 2018). I hold the realist sentiment that it is too costly to say that our talk about musical works is merely fictional. I am attracted to the theoretically conservative maxim that metaphysicians should not challenge opinions of musicians or reinterpret musical practice and musical discourse. Although I cannot defend these

Musical Aristotelianism has been merely hinted at in the literature. Lydia Goehr mentions the Aristotelian view in passing (Goehr 1992, 15-16). Stephen Davies, after discussing Musical Platonism and nominalism, writes:

Is another option for characterizing universals available? One is an Aristotelian view, according to which universals are created along with their first instances and may be destroyed where no instances remain and more cannot be made. Aristotelian universals are firmly tethered to this world and its concrete items and events. So, without further ado or argument, let us accept that musical works, *qua* abstracta, are Aristotelian universals (Davies 2003, 32).

Although Davies rightfully highlights the fact that Musical Aristotelianism is explanatorily powerful in the sense that it can explain several facts about musical works, he does not say anything about the *nature* of the universals that the Aristotelian identifies musical works with, nor does he say anything about the consequences of identifying musical works with immanent universals. Recently, Philip Letts (2018) has defended the view that musical works are properties, arguing that this kind of view is preferable to Musical Platonism. But, like Davies, Letts provides no account of the nature of such properties.

The Aristotelian needs to address such issues as change of pitch and key standards over time and whether the identity of a musical work is necessarily tied to a musicohistorical context in order for the theory to count as a serious contender. Furthermore, without an explication of its metaphysics and an analysis of its theoretical commitments we cannot determine adequately whether or not Musical Aristotelianism is a superior alternative to Musical Platonism and nominalism. Since the Aristotelian theory is a coherent position and has some degree of explanatory power, it deserves more attention than it has received.

Moreover, Musical Aristotelianism satisfies an interesting *combination* of intuitions about musical works. It explains the fact that musical works are totally present in their manifestations, repeatable, created, can be destroyed, and retain a legacy long after the composer. This combination of intuitions is not straightforwardly explained by Musical Platonism or nominalism. For instance, Platonism explains the whole manifestation of a musical work in each instance and the repeatability of musical works, which the nominalist has traditionally had problems accounting for. On the other hand, Platonism is burdened with over complications due to the creation and destruction of musical works as well as epistemological problems about how we are acquainted with Platonic types or universals. The Aristotelian can explain all of these intuitions and not run into said epis-

claims here, I should note that certain motivations for fictionalism can be undercut by Musical Aristotelianism. Andrew Kania, for instance, argues that 'realism about musical works stands or falls with Platonism about musical works' (Kania 2012, 197). If I am right, this premise is false. The fall of Musical Platonism does not lead to fictionalism (or nominalism).

temological problems. Furthermore, such nominalist theories as musical materialism fail to capture the intuition that a performance is *of* a work, insofar as materialists propose that a performance is part of or coincides with the performance. As Wesley D. Cray and Carl Matheson have argued (2017, 713), musical materialism violates the 'of-ness' constraint. A performance is of a work, just like this vegetable is of the kind *Pumpkin*. The Aristotelian position can be seen as offering an attractive, serviceable middle ground between Platonism and materialism. These reasons further justify a closer look at the Aristotelian standpoint in debates about the nature of musical works.<sup>6</sup>

In what follows, I motivate Musical Aristotelianism by demonstrating that it is explanatorily powerful and affords a unified account of the above combination of intuitions. I offer two arguments for Musical Aristotelianism against the backdrop of Musical Platonism. I articulate a novel account of the Aristotelian theory according to which musical works are *structural* universals. I explore some consequences of the view related to on-going issues in debates about musical works such as whether musical works are necessarily tied to their musico-historical context. Finally, I respond to an influential objection due to Richard Wollheim against the thesis that musical works are properties, concluding that Musical Aristotelianism is a genuine competitor in debates about the nature of musical works.

#### 1. Motivating Musical Aristotelianism

In this section, I motivate Musical Aristotelianism by outlining its explanatory benefits. Musical Aristotelianism explains five intuitions about musical works, namely, that musical works are totally present in their manifestations, repeatable, created, can be destroyed, and retain a legacy long after the composer. The fact that it explains five highly plausible intuitions about musical works makes it an explanatorily powerful theory. What is more, the explanation for each intuition is a straightforward application of its ontology. Thus the Aristotelian offers a unified account of each intuition. This is an attractive result because as regards this set of intuitions competing theories must either violate the intuition in question or provide a disjointed explanation of it that detracts from the theory's theoretical unity.

The first intuition is obvious: when we attend a performance of Beethoven's *Ninth Symphony* we experience all of the work; it is totally present in its manifestation. Thus an ordinary person who attends a performance would say that they enjoyed it, implying that they enjoyed all of it. That is the description of the intuition in plain terms. Musical Aristotelianism – using technical notions – explains the first intuition as follows. The fact that immanent universals are wholly present in their instances accounts for the fact that musical works are totally present in their manifestations. The redness 'in' the football is all

<sup>&</sup>lt;sup>6</sup> I take Cray and Matheson's objection that Musical materialism violates the of-ness constraint as decisive. Thus I mostly spa with Musical Platonism, which is the popular and widespread theory of musical works.

there before me when I perceive the football. Similarly, Beethoven's Ninth Symphony is all there before us over an interval of time when we attend a performance of it. The locution 'exist in' refers to the universal as a sort of constituent in, what D.M. Armstrong calls, the 'thick particular' (1997, 124-25). So the musical work exists in the performance in virtue of being a constituent in it. This provides an analysis of appreciating aesthetically the work in the performance and the work itself, just like I perceive redness-in-the-football and contemplate redness. Therefore, the distinction between a musical work and its performances is retained - contra Puy (2020, 189) - and at the same time the belief that we directly experience the work is captured intuitively. By contrast, Platonists must say - to their disadvantage - that we indirectly experience the work (Dodd 2007, 92-100; Friedell 2020, 820; Puy 2019, 249). The Aristotelian says that we directly access the work because we directly experience the work in the performance. Musical materialism also explains the first intuition, since materialists say that the work coincides with its manifestations. So the Aristotelian cannot claim any explanatory privilege with respect to the first intuition. (Recall that my goal here is to demonstrate how the Aristotelian explains a number of plausible (though defeasible) beliefs about musical works taken together.)

The second intuition says that musical works are repeatable, that is, a musical work can be performed several times over. The fact that immanent universals can be multiply instantiated explains the repeatability of musical works. Arguably, Musical Platonism and certain versions of Musical nominalism (specifically, Tillman's version) can explain these two intuitions adequately, albeit in their own ways. So the fact that the Aristotelian can explain these intuitions does not yield an explanatory *gain* over (say) Musical Platonism. However, Musical Aristotelianism does receive some motivation from explaining these intuitions. It would be a cost to the theory if the Aristotelian butchered these intuitions.

The third intuition concerns the creation of musical works. Beethoven composed a score and subsequently his *Ninth Symphony* was created. Beethoven's *Ninth Symphony* did not exist in 1100 AD. It was brought into existence by Beethoven. The Aristotelian explains this fact as follows. Immanent universals make a causal difference to reality by endowing particulars with causal powers; on this view, particulars act and are acted on in virtue of having universals.<sup>7</sup> Also, immanent universals are contingent existents; they are located in space and time wherever and whenever in the manifold their instances are.<sup>8</sup> Immanent universals are brought into existence at the time of their first instance; the first instance occurs in virtue of causal relations holding between particulars having that universal(s) and other particulars, such as a composer, musicians, instruments, etc, having the

<sup>&</sup>lt;sup>7</sup> Of course, nominalists, trope theorists, and other theories of properties provide different explanations of causal processes.

<sup>&</sup>lt;sup>8</sup> Hence, a universal does not have a temporally disconnected existence. It is wrong to suggest that immanent universals somehow go in and out of existence, as Puy has claimed (2020, 190). A universal with instances at distinct times is multiply located temporally speaking, just like the redness of two red footballs is multiply located spatially speaking. This qualification introduces issues in philosophy of time, which are orthogonal to the present discussion.

appropriate universals. Whatever and whenever the first instance is, its time marks the creation of the work. Since a work is a sound structure, where a sound structure is a complex of sound-universals, the Aristotelian counts the first instance as the work's first actual performance. This fits with our robust sense of reality but it has been challenged on the grounds that the completion of the score marks the creation of the work. This is a separate issue to my present point, which is that the Aristotelian *can* explain the fact that musical works are created. I discuss the problem of unperformed works in Section 4.9 Creation of musical works is only accounted for by moderate Musical Platonists - that is, by Platonists who posit creatable indicated types. But moderate Musical Platonism posits more complicated and ad hoc entities as fillers of the role of musical works. Extreme Musical Platonism violates this intuition and, I submit, does so gravely (although I will not argue for this and do not have much to add to the extensive debate about this intuition).<sup>10</sup> So either the Platonist endorses the more complicated theory or violates the intuition. On the other hand, the Aristotelian explains the creation of musical works in the same way it explains the creation of any other immanent universal. No further complication is added to the theory to explain this intuition. Musical materialism also explains the third intuition but does so by saying that a work coincides with its first manifestation, which, as I mentioned above, violates the of-ness constraint.

Let us move on to the fourth intuition. As our sun evolves into its later stages it will expand and boil the oceans of Earth. Assuming that the human race has not escaped beyond the Oort cloud and taken score-copies, recordings, or the means to perform Beethoven's *Ninth Symphony*, it will go out of existence. In general, musical works can go out of existence. Since immanent universals are contingent existents, it is possible for a universal not to be instantiated at any future times. So the Aristotelian explains how a musical work can be destroyed. This just means that a musical work has no further instances in the future. Perhaps the destruction of musical works is not a widely held intuition, but it has its proponents: (Davies 2003, 31; Trivedi 2002, 77). The challenge for the Platonist is to explain this intuition without complicating their theory. Typically, the intuition is not respected and I say that this results in a cost that the Aristotelian does not pay. The Aristotelian explains the intuition using the same resources that it uses to explain the previous intuitions.

<sup>&</sup>lt;sup>9</sup> It is possible that the work was first instanced before the composer actually created the work. It is possible that the Incan empire maintained a court of the best musicians across the Americas, one of whom created what we call 'Beethoven's Ninth Symphony'. If the world's contents *were* strung out in the manifold in that way, what we call 'Beethoven's Ninth Symphony' *would* have been created before 1824 AD. Things *didn't* happen that way. Beethoven created what we call 'Beethoven's Ninth Symphony' and the Aristotelian explains this fact.

<sup>&</sup>lt;sup>10</sup> Dodd (2002; 2007, 112-21) and Peter Kivy (1993, 41-45) violate the intuition and attempt to revise it in terms of creative discovery. Levinson (1980) complicates Platonism in order to preserve the creatability intuition. For recent discussion, see (Bartel 2018; Caplan & Matheson 2004; Cray & Matheson 2017; Friedell 2020; Howell 2002; Predelli 2001).

The fifth intuition says that musical works can exist long after the composer. Example: Beethoven died in 1827 AD, but his *Ninth Symphony* did not go out of existence when he died. This intuition might seem mundane. But it is denied by (moderate) Platonists who are committed to contingently existing types that essentially involve the exist-

tonists who are committed to contingently existing types that essentially involve the existence of the composer. If the composer does not exist, the indicated type does not exist. So, musical works cannot exist after the death of the composer (for discussion, see Caplan & Matheson 2004, 128-32). A moderate Platonist might say that the score is enough to ground the composer's act of indicating the work, so even without the composer the work persists. However, this would require a different story about the constituents of the indicated type and how a work is tethered to a composer, since it must omit the existence of the composer as a constituent. Extreme Musical Platonism can explain this intuition since the eternal type exists long after its composer, but this same fact entails that extreme Musical Platonism must violate the creation and destruction of musical works. By contrast, the Aristotelian has no problem with the fifth intuition. Beethoven's *Ninth Symphony* as an immanent universal is not bound to the existence of its creator because the creator is not essentially involved in or a constituent of the immanent universal. Therefore, it can exist long after the act of composition and long after the composer has died.

To sum up, all five intuitions appear compelling, although I grant that each of them can be resisted or explained away. That aside, the Aristotelian can account straightforwardly for every intuition in terms of the ontology of immanent realism. Therefore, it provides a unified account of these intuitions. By contrast, Musical Platonism gives a disjointed response to these intuitions, sometimes explaining some intuitions while violating others. Further debate is to be had about the status of these intuitions and the nuanced ways one might explain each intuition. But if you find all five intuitions plausible and worthy of explanation, you should be attracted to Musical Aristotelianism. I have thereby established sufficient motivation for Musical Aristotelianism and impetus to explore its underlying metaphysics.<sup>11</sup>

#### 2. Arguing for Musical Aristotelianism

In this section, I offer two arguments for Musical Aristotelianism against the backdrop of Musical Platonism. These arguments also motivate my preferred version of Musical Aristotelianism, which says that musical works are a certain kind of immanent universal, namely, structural universals.

The first argument is methodological. It is due to Letts (2018), but I develop it in a way that departs from his stated conclusion and I bolster it in light of an opposing methodological approach that attempts to blunt the force of the argument. To fix ideas, let us single out Dodd's version of extreme Musical Platonism. Dodd admits the existence of

<sup>&</sup>lt;sup>11</sup> Empirical work should play more of a prominent role in our analysis of the status and interpretation of these intuitions. For experimental studies on folk intuitions about musical works, see (Bartel 2018; Sigutė Mikalonytė & Dranseika 2020).

properties *in the immanent sense* (Dodd 2000, 436). Even though musical works are not identified with properties, they are used in the construction of the theory. It is part of his ontology that there are properties that act as conditions that certain tokens must meet in order to be a token of some type. Dodd, following Nicholas Wolterstorff, claims that each type has a property-associate and that the identity of the type is derived from its property-associate (Dodd 2000, 435). The type *K* has the property *being a k* as its property-associate.<sup>12</sup> Properties are important for Dodd's theory because his argument that types are eternal entities relies on the premise that type *K* exists iff *being a k* exists (Dodd 2002, 382).

Dodd's ontology contains properties and types, whereas the Aristotelian theory contains properties and not types. Talk of types or kinds, the Aristotelian says, is analysed in terms of universals.<sup>13</sup> Any ontology that posits properties and does not identify musical works with properties is less parsimonious than Musical Aristotelianism. All else being equal, we should prefer the more parsimonious theory. So we should prefer Musical Aristotelianism to Dodd's Platonism (see Letts 2018, 60).

Letts's conclusion is slightly different to mine. The kind of property theory of musical works that he argues for is *reductive*: each type is identical with its property-associate (Letts 2018, 60). On this view, one need not deny that musical works are types. He calls this view the 'reductive property theory'. My version of the argument compares the 'eliminative property theory' with Dodd's Platonism. On this eliminativist view, strictly speaking, there are no types.<sup>14</sup>

It is important to highlight the methodological context in which the principle of parsimony operates in this argument. The present methodological context hinges on the maxim that we should use pre-existing entities in our ontology to fill the role of musical works, if we can. Not all philosophers of music accept this maxim. Indeed, the prominent (moderate) Musical Platonist Jerrold Levinson rejects it. In reply to Greg Currie's criticism that Platonism posits 'metaphysically obscure' entities (Currie 1989, 58), Levinson embraces the criticism, adding:

It is in fact hard to avoid the suspicion that a motivation for Currie's metaphysics of art is the appeal of finding further employment for a readymade ontology – that of actions and events – which just happens to be lying around (Levinson 1992, 219).

<sup>&</sup>lt;sup>12</sup> As Letts notes, other versions of Musical Platonism endorse similar correspondence principles between types and properties (Letts 2018, 59).

<sup>&</sup>lt;sup>13</sup> According to Armstrong, types or kinds, which he calls substantival universals, are reduced to structural universals (Armstrong 1978, 62-65).

<sup>&</sup>lt;sup>14</sup> It is possible that the difference between the reductive and the eliminative property theory is purely verbal. But a lengthy discussion about the differences between reductionism about X and eliminativism about X is required to establish this thesis, which is beyond the scope of this paper.

However, Levinson offers no reason why we should adopt his methodological approach. It is nothing more than prejudice. On the other hand, we have at least three reasons to accept the maxim of using pre-existing entities in our ontology to fill the role of musical works. First, for the sake of clarity we should use familiar ideology to explain most if not all of the varied phenomena we experience, from the resemblance of two apples to multiple performances of Beethoven's Ninth Symphony. There is no reason, ab initio, to introduce foreign concepts; they are to be avoided if possible. Second, if we use familiar notions for varied phenomena, we can give systematic explanations that exemplify theoretical unity. We should prefer this to gerrymandered and grotesque theories. Third, we can acquire an ideologically and ontologically parsimonious theory if we use a minimal set of terms and entities to explain a whole host of phenomena. If we believe in immanent universals for other reasons - perhaps, because they afford the best analysis of perfectly natural properties or because they adequately solve the problem of universals or because they provide the most attractive theory of laws of nature, we can use them to answer the categorial question about musical works. Put differently, if properties are 'lying around' (to use Levinson's phrase) and they can be put to work in the ontology of music, we do not need to posit types for this express purpose. Most Musical Platonists have properties lying around. Thus the first argument retains its force and motivates the eliminative property theory more than the reductive property theory. For if we have no types, we have no need to reductively identify them with properties.<sup>15</sup>

The second argument is a direct challenge to Musical Platonism and interestingly entails a reason in favour of the version of Musical Aristotelianism that says musical works are a certain kind of immanent universal, namely, structural universals. This argument begins with the premise that sound structures have some kind of complexity that must be explained. Any theory that does not explain this complexity is worse off than a theory that does. Musical Platonists identify each musical work with some sound structure S or an indicated structure that has sound structure S as a constituent. Prima facie, S has some kind of complexity. A musical work is a sound structure and sound structures have some kind of complexity that cries out for explanation. Platonists to date have not given any such account. Platonists posit types without any story about whether and how some types are more complex than others. They could deny the initial premise, asserting that musical works are abstract simples (Friedell 2020). However, this proposal leads to bigger troubles. Suppose work W is abstract simple E (whether it is created or not is irrelevant) and suppose that P is some performance of W. Necessarily, performance P, which is part of the concrete world, stands in some relation to abstract simple E. On Friedell's view, each abstract simple is intrinsically the same; so the fact that this relation holds between P and

<sup>&</sup>lt;sup>15</sup> For Armstrong's classic statement of his Aristotelian realism about universals, see (Armstrong 1978). For a direct criticism, see (Devitt 1997). For Lewis's influential account of how immanent universals can be put to explanatory work as sparse properties, see (Lewis 1983). For one recent reply, see (Eddon & Meacham 2015). For discussion of naturalness, see (Dorr & Hawthorne 2013).

*E* is not in virtue of the unique nature of *E*. It is by magic that *P* must, of absolute necessity, be related to *E* and not some other abstract simple, because there is nothing distinctive about *E* vis-à-vis other abstract simples. But surely it is possible that *P* exists without it being related to *E*. If not, there must be something distinctive about *E* to (partially) ground this fact; but the theory under consideration denies that abstract simples have distinctive natures and even if it did posit distinctive natures we would not have epistemic access to them as they would be properties of abstract simples. In short, the relation between *P* and *E* entails unintelligible necessary connections between distinct entities. Hence, the relation is mysterious or we can only understand it by magic.<sup>16</sup> The Platonist is better off giving an account of the complexity of musical works, where a musical work is understood as a sound structure.<sup>17</sup>

I know of no trouble-free account of the complexity of musical works for the Platonist. To illustrate, if S is complex, S has some kind of partitive structure (to use a neutral phrase that does not presuppose that the complexity is mereological). Platonists might suggest that this partitive structure is mereological; after all, the mereological concept of part is 'perfectly understood' (Lewis 1991, 75).<sup>18</sup> On this proposal, S receives a standard mereological analysis in terms of its parts, call them its 'sound-bits'. This makes S a mereological sum. But S is not a mereological sum. S is a structured pattern of sounds.<sup>19</sup> A structured pattern of sounds does not obey standard principles of classical extensional mereology. Structured patterns require certain relations that hold between its sound-bits, whereas S qua mereological sum does not. S qua mereological sum exists even if its sound-bits are scattered across the universe. So the mereological analysis is out.

Another proposal is to distinguish *being simple* from *being mereologically atomic*. Hence, S has no proper parts (in the mereological sense), so S is mereologically atomic; but S is not simple, because S *involves* other sounds to make up a structured pattern. I dare not say 'to compose' a structured pattern, because composition is typically understood mereologically. S is not composed of them. S is not mereologically complex. However, the notion of S being involved with simpler sound-bits is problematic. S and the simpler sound-bits are, by hypothesis, mereologically atomic; yet they are not simple because

<sup>&</sup>lt;sup>16</sup> Friedell's theory resembles magical ersatzism in the metaphysics of modality, the view that possible worlds are abstract simples. My objection is modelled on one of David Lewis's objections to magical ersatzism (Lewis 1986b, 179-81). For discussion of Lewis's critique of magical ersatzism, see (Fisher 2018a).

<sup>&</sup>lt;sup>17</sup> Friedell's view diverges from other Platonist theories on this point. He proposes that musical works *have* sound structures, not that they *are* sound structures. Nonetheless, he needs to give an account of sound structures, which he does not do. So his theory is incomplete. My Aristotelian theory could be incorporated into his theory as an account of sound structures. This does not, of course, make the main objection disappear. For we can similarly ask: what is it about this abstract simple that grounds the fact that it has that sound structure? Moreover, once we realise the extent of the explanatory work of sound structures (plus performance rules), abstract simples are redundant, much like souls understood as immaterial nondescript 'nuggets' in debates about personal identity (as Locke famously argued).

<sup>&</sup>lt;sup>18</sup> For discussion, see (Bennett 2015).

<sup>&</sup>lt;sup>19</sup> Dodd says a sound structure is a structured pattern of sound-types. Obviously, we cannot assume at the outset that sounds are types because that would beg the question against Aristotelians.

they are involved with each other. If *S* and the sound-bits are atomic, they are modally recombinable, since they are mereologically distinct. But the fact that they are involved with each other entails, of absolute necessity, that *S* drags the (distinct) sound-bits around with it. Wherever we have *S* we have the other sound-bits. However, no explanation is available to state why there is this necessary connection, especially when we intuitively judge that there are no necessary connections between *S* and the sound-bits, given that *S* and the sound-bits are distinct. In short, this proposal introduces brute necessary connections that are simply unintelligible.<sup>20</sup>

Therefore, the best approach is to account for the structural complexity of *S* by analysing *S* into its constituents. But the Platonist has trouble providing an analysis. Musical Aristotelianism can offer an explicit and trouble-free account of the complexity of sound structures, but to pull this off the Aristotelian has to posit *structural* universals. If the Aristotelian claimed that musical works are immanent universals and that there are simple universals only, the Aristotelian suffers from the same problem as the Platonist. The Aristotelian has failed to explain the complexity of sound structures. Therefore, the Aristotelian should posit structural universals (or better use structural universals if they have already been admitted to fill other theoretical roles) and argue that the complexity of sound structures is analysed in terms of structural universals. Hence, we have another reason to favour Musical Aristotelianism.

#### 3. Identifying Musical Works with Structural Universals

So far I have motivated and argued for Musical Aristotelianism and argued for the version of Musical Aristotelianism that says musical works are structural universals. In this section, I articulate an account of structural universals from the metaphysics of properties and explain how the Aristotelian can use this account to identify musical works with structural universals.<sup>21</sup>

Universal U is complex iff U has other universals as constituents. The universal being red&round has being red and being round as constituents. This kind of complex universal is 'conjunctive'. Conjunctive universals are instantiated by the same particular that instantiates the constituents of the universal. Structural universals are a distinct type of complex universal. Structural universals are instantiated by particulars that have proper parts, but the parts of the particular cannot instantiate the structural universal and the particular cannot instantiate the constituents of the structural universal. The structural universal being a methane molecule is had by various molecules, but the parts of the molecule cannot instantiate the constituents of a methane molecule, and if a instantiates being a methane molecule, a cannot instantiate the constituents of being a methane molecule.

<sup>&</sup>lt;sup>20</sup> This objection is modelled on Lewis's critique of the magical conception of structural universals (Lewis 1986a, 41-42).

<sup>&</sup>lt;sup>21</sup> For a comprehensive survey of the metaphysics of structural universals, see (Fisher 2018b).

Armstrong (1978, 69-71) gives the following account of structural universals:

S is a structural universal iff 1) S is instantiated by mereological sum s, 2) s has (proper) parts a, b, c, ..., n that instantiate properties P1, P2, P3, ...,  $P_n$  respectively and 3) a, b, c, ..., n stand in some external relation R or relations R1, R2, ...,  $R_n$  to each other.

Consider *being a methane molecule*. It is instantiated by a mereological sum, call it 's'. Sum s is identical with a, b, c, d, and e taken together. The parts (of s) have properties and stand in relations to each other to form the structural universal had by s as follows: a, b, c, and d instantiate *being hydrogen* and e instantiates *being carbon*. The particulars also stand in the (external) *bonded* relation to each other, i.e., a stands in the *bonded* relation to b, and b to e, c to e, and d to  $e^{.22}$  For convenience let us write the state of affairs of a's *being F* as [Fa] and the state of affairs of a's *bearing R to b* as [Rab]. So we have [Ha], [Hb], [Hc], [Hd], [Ce], [aBe], [bBe], [cBe], [dBe] with which we analyse s's *being a methane molecule* (Armstrong 1997, §3.7). On this view, structural universals *are* conjunctions of states of affairs types.

A structural universal can be considered in abstraction from the particular(s) it is instantiated in. This follows from Armstrong's suggestion that immanent universals are gutted states of affairs. E.g., *being red* is the state of affairs of *a's being red* when *a* is bracketed in abstraction; *being red* is really \_'*s being red*. In abstraction the structural universal shows us that the particulars that instantiate the simpler constituents of the structural universal must be related to each other in the right way and must instantiate certain universals for the structural universal to be instantiated. In many cases (more likely less scientific ones) we may not know exactly what or how many external relations there are that must hold between the parts of the complex particular. *Being a certain tartan pattern* is a structural universal that is instantiated by some piece of cloth (the complex particular) that has parts that must stand in certain spatial relations and have certain properties such as *being yellow*, *being green*, etc. If the parts of the cloth were scattered over London, we would not have a tartan pattern. However, it is not the case that the structural universal must be had by a particular of a certain complexity as in the methane example. The same tartan pattern could be had by a larger piece of cloth.

The examples above do not require the simpler universals (i.e., the constituents of the structural universal) to stand in relations with each other. The examples above only require that the proper parts of the complex particular stand in certain relations to each other. In the case of musical works, however, there are certain relations, what I call 'musi-

 $<sup>^{22}</sup>$  An external relation is typically defined as the negation of an internal relation, where some relation *R* is internal iff *R* supervenes on the natures of its relata. My theory is compatible with other analyses of internal and external relations.

cal relations', that *must* hold between simpler universals to yield an ordered structure of sound.

To see this, it is helpful to consider what music is, as this will shed light on the inner complexity of a musical work. A work of music, to begin, is a structure of sounds, as noted in the previous section. According to William E. Webster, music is a two-dimensional sound-complex. The two dimensions are tonal and rhythmic order. These dimensions are sets of relations ordered by a principle of organisation. The tonal dimension is a set of relations ordered by the tonal principle of organisation. The relata of this relation are organised according to the tonal principle. The same description applies to the rhythmic dimension. Diatonic music has 'sound intervals ordered diatonically' and 'rhythmic sound intervals ordered metrically' (Webster 1974, 61). Serialism is a different kind of music in virtue of being governed by a different tonal principle of organisation, viz., 'the division of the octave into 12 equal semitones' (Webster 1974, 61). Kingsley Price thinks music is a three-dimensional system of sounds. There is the dimension of pitch, of time, and of volume. For instance, tones are ordered according to pitch. This involves relational facts about where a pitch is located with respect to other pitches in an octave. When related in certain chains melody and harmony obtains. The dimension of time is the linear principle of organisation that Webster alluded to and the dimension of volume corresponds to the softness or loudness of a pitch (Price 1982,  $\S2$ ).

I am not concerned with the differences between these theories (and there are many other candidate descriptions that I have not mentioned). There might be other kinds of musical relations besides the ones that I have discussed.<sup>23</sup> In addition, I am not proposing that all musical relations are either tonal or rhythmic, and I am not arguing for the reductionist claim that music is a mere sequence of tones. The relevant point is that these two theories capture the fact that sounds are structured in virtue of being ordered by relations and are ordered in virtue of standing in musical relations. The order is a relational state of affairs. It has to do with relations between properties. This shows us that Armstrong's account of structural universals left out something that we need in order to identify musical works with structural universals. It left out certain relations between the constituent-universals. We must modify Armstrong's account as regards the kind of structural universal that we intend to identify musical works with:

*S* is a structural universal of kind *K* iff 1) *S* is instantiated by mereological sum *s*, 2) *s* has (proper) parts *a*, *b*, *c*, ..., *n* that instantiate properties *P*1, *P*2, *P*3, ..., *P<sub>n</sub>* respectively, 3) *a*, *b*, *c*, ..., *n*, stand in some external relation *R* or relations *R*1, *R*2, ..., *R<sub>n</sub>* to each other, and 4) *P*1, *P*2, *P*3, ..., *P<sub>n</sub>* stand in some relation  $R^*$  or relations  $R^*1$ ,  $R^*2$ , ...,  $R^*_n$  to each other.

<sup>&</sup>lt;sup>23</sup> For a detailed discussion, see (Davies 2001, 47-60).

The modification is that the *properties* had by the parts of the complex particular stand in certain relations to each other in addition to the parts of the complex particular standing in certain relations. In the case of musical works the properties are sound-properties such as a pitch or tone and the relations are 'musical relations' of (say) a tonal and rhythmic ordering. When the instantiated sound-properties stand in the appropriate relations we get a sound structure. The sound structure is spread out across time and its instantiation is in space (as I take sounds to be locatable in spacetime). The complex particular that instantiates the structural universal is also spread out in time. The parts of the complex particular lar do not exist all at once.

Suppose we attend a performance of Beethoven's Second Symphony. According to the Aristotelian, there exists being Beethoven's Second Symphony that is instantiated by a mereological sum (call it s) that has as parts particulars that have sound-properties. Perhaps in this case the particulars are instruments, say, two flutes, two oboes, two clarinets, etc, taken together. All of these parts have sound-properties at a particular time: oboe1's playing tone  $p1_{t1}$ , clarinet2's playing tone  $p2_{t1}$ , and so on at some location. But the particulars, more generally, are just particulars instantiating sound-properties. The soundproperties are also related to each other in (say) a metric and rhythmic order if the musical relations between the sound-properties organise the sound-properties along a tonal and rhythmic dimension (if Webster is right; again, I am not committed to a specific theory about what musical relations there are exactly and whether they are reducible to notes). In addition, the parts of s stand in spatial relations to each other. Such relations are acoustically relevant in producing the structural universal, just like a tartan pattern must have its parts related in the right way. Sometimes these spatial relations are specified by the composer. Stockhausen's Helicopter String Quartet instructs the musicians to sit in helicopters flying around each other. In less unusual cases musicians are meant to be arranged in such a way that anyone attending the performance in a concert hall would hear the sound structure emanating from the stage.

In short, every performance of Beethoven's *Second Symphony* is a mereological sum of particulars (say, instruments or people playing instruments) that stand in some kind of spatial order and instantiate sound-properties across time in the right way according to principles governing the relevant musical relations between sound-properties. If the corresponding conjunction of states of affairs obtains, we get the structural universal that is composed of these simpler universals (for the structural universal just is the relevant conjunction of states of affairs).<sup>24</sup> The musical work is the structural universal (of kind *K*, as per our revised account). Thus *x* is a performance of work *W* iff *x* instantiates the structural universal the structures.

<sup>&</sup>lt;sup>24</sup> The conjunction in most cases has relational states of affairs as one kind of constituent. These relational states of affairs involve musical relations that govern and organise tones or notes such as tonal, metric, melodic and rhythmic relations. Davies argues that melodies, rhythms, etc form irreducible levels of musical organisation (Davies 2001, 54-58). If this thesis is correct, the corresponding relational state of affairs (though irreducible) is part of the conjunction of states of affairs.

tural universal of *being* W. To be clear, the structural universal is of a complex particular, but the structural universal is analysed in terms of a conjunction of states of affairs, where some of the constituents are relational states of affairs that contain musical relations. And if you think that performances are events, the Aristotelian can analyse talk of events in terms of states of affairs.

That is the theory. A lot more needs to be said about what the theory says about specific issues concerning musical works, to which we now turn.

#### 4. Four Consequences of Musical Aristotelianism

In this section I discuss four consequences of Musical Aristotelianism. The first has to do with the extent to which musical works are manifested. The second stems from whether musical works as structural universals have their constituents essentially. The third concerns change of pitch and key standards over time. The fourth centres on whether the identity of a musical work must be tied to a musico-historical context.

The first consequence of Musical Aristotelianism is that if music is audible and musical works are structures of sound-universals, the only manifestations of musical works are performances and recordings. This runs into the problem of admitting that unperformed works of music are not works at all. But the Aristotelian has a sensible answer to this problem. The intuition that there are unperformed works is derived from the idea that a composer can write a score and never have it performed. The score or score-copies ground the mere *possibility* of the instantiation of the work such that were the work to be performed, it would be instantiated (cf. Charlton 1970, 27-33). A score is the linguistic counterpart of a musical work. It is like a recipe according to which we can produce an instance of something were we to follow the instructions. For the seasoned musician and composer it provides a means by which someone can conceive of the structural universal in abstraction. The structural universal need not exist for us to execute this operation, nor do we require that the musician or composer be acquainted with an instance of the structural universal. After all, we conceive of being a methane molecule yet we are never acquainted with any instance of it (although we are acquainted with vast collections of methane molecules).<sup>25</sup>

The second consequence of Musical Aristotelianism is that the constituents of this variety of structural universal are not essential, whereas in cases from the hard sciences they are. Consider *being a methane molecule*. It has parts like *being carbon, being hydrogen*, and *being bonded to*. These universals must be instantiated in the right way and there must be no other universals involved. The constituents of *being a methane molecule* are essential parts of the structural universal. If one of the *being bonded to* relations did not hold between a particular hydrogen atom and the carbon atom, we would not have *being* 

<sup>&</sup>lt;sup>25</sup> This answer uses modal notions, so some theory of modality is ultimately required. This is a separate issue to be hashed out in the metaphysics of modality. See (Armstrong 1989; Lewis 1986b; Melia 2003).

*a methane molecule*. The entire conjunction must obtain for us to have the structural universal. Now consider musical work W. Does *being* W have its constituents essentially? No. There is a normative aspect to musical works that is not present in chemistry or other hard sciences. The composer prescribes a certain structure. A performance of W *should* be an instantiation of a certain structure, but it does not follow that *being* W can only be instantiated iff the entire conjunction of states of affairs obtains. The normative element in aesthetics allows us to admit that there are *partial* instantiations of *being* W. A partial instantiation of its simpler universals. (I am not suggesting that the instantiation relation itself admits of degree.) Friedell (2020, 816) and Puy (2019, 251) have also elaborated on the significance of contingent, normative features of musical practice. Their characterisations can be adapted to the Aristotelian framework, although I do not have space to fill out the details. In short, I agree with Friedell's explanation that performance rules govern musical practice as to how a musical work can be altered or not (although he fleshes it out in a Platonist framework).

This aspect of the theory can be used to account for cases where performances differ with respect to the sound-universals that are instantiated. If a performance involves a wrong note, it is a partial instantiation of the work. If we consider a series of performances that differ increasingly with respect to one note, the degree to which the work is instantiated decreases. Two performances of the same work are partially identical with respect to the degree of overlap of the plurality of simpler sound-universals that they instantiate. So performances do not have to be wholly identical in order to instantiate the 'same' work.

The normative contingency of these kinds of structural universals allows us to accommodate the fact that musical works can change, if we admit this possibility, and result in distinct versions.<sup>26</sup> If a composer writes a score and has it performed but then alters its ending, the structural universal has had some of its constituents changed. This is possible because the composer normatively specifies what structural universal is to be instantiated. Violations and deviations of a work are to be understood in the same way. A violation of the score, or the authoritative exemplar, occurs just when some musical relation in one of the dimensions is not instantiated and/or a sound-property or properties is not instantiat-

<sup>&</sup>lt;sup>26</sup> It might be contentious whether a composer could write a score, enact a performance of the work, and then alter its ending. It depends on what is required for a musical work to be complete. For discussion, see (Trogdon & Livingston 2014). Davies offers an insightful account of the notion of versions and interpretations of works as well as versions of interpretations (Davies 2007). The Aristotelian can accommodate these notions, allocating structural universals in ways that fill the work-version-role and the work-interpretation-role, for instance. The flexibility is due in part to the hypothesis that (musical) structural universals need not have their constituents essentially. It also requires fitting musical practice into the Aristotelian framework, which is beyond the scope of this paper. For a Platonist attempt at explaining variation and versions of works in terms of higher-order and lower-order types, see (Puy 2019). Puy's theory introduces ontic complications: the work is identified with the higher-order type; so it is less fundamental than the lower-order type; but the work should be more fundamental than its versions.

ed but should have been. If the number of ordering relations and sound-properties that are not instantiated increases, violation increases. A deviation from the score, or the authoritative exemplar, occurs just when new ordering relations are instantiated and/or new sound-properties are instantiated. Similarly, this admits of degrees insofar as the structural universals overlap to some degree with respect to their constituents. The end result is that change of works is intrinsic, which coheres nicely with our intuitive sense of how something undergoes genuine change.<sup>27</sup>

The third consequence of Musical Aristotelianism has to do with *what* is wholly identical in a structural universal of kind *K*. Two performances of *W* must be instantiations of *being W*. The two instantiations are identical with respect to *being W*. But now we have a problem. Over the centuries instruments have been tuned differently and readers of scores today use scales much higher in pitch than in the past (Price 1982, 332; Webster 1974, 59). If the same pitches are not instantiated, we do not have the same thing. So no performances now are the same as performances of the classical period. But this seems wrong. Last week's performance of Beethoven's *Ninth Symphony* is an instance of the same thing that Beethoven conducted many decades ago.

My response to this problem derives in part from a suggestion by Price. A score, following Price (1982, 332), does not correspond one-to-one to a specific set of sounduniversals. The notes of a score refer to ranges of tones, ranges of loudness, etc. The key signature refers to a scale-universal and to a pair of similar sound-universals that bound the relevant octave, but this pair of sound-universals can vary and so does the scaleuniversal. In the eighteenth and nineteenth century, musicians referred to a pair of sounduniversals lower in pitch to what we refer to today. Thus the key signature, in fact, refers to several scale-universals. It is a case of plural reference. The score refers to *these* scaleuniversals; it refers to these pitches or these sound-universals of a certain range of pitch. Therefore, performance<sub>2019AD</sub> and performance<sub>1824AD</sub> (say) of W overlap with respect to their musical *relations*, but the sound-properties merely resemble each other. The score has a kind of flexibility that partly justifies the intuition that two performances of the same relations are wholly identical, although in reality they are only partially identical since the sound-properties are merely similar. We could consider the two performances wholly 'the same' and in doing so count the merely similar sound-properties as the same (where 'sameness' is construed as resemblance or loose identity). But in reality they are not the same (where 'sameness' means strict identity). Strictly speaking, what is the same, in these cases, are the instantiations of the musical *relations* that govern the structure of W. So we do not have literally in every respect all of W here in 2019 and in 1824 (of course, there exist cases where every part of W is multiply instanced). As Webster writes,

<sup>&</sup>lt;sup>27</sup> Friedell gives an extrinsic account of change of works, which violates our intuition that (genuine) change is intrinsic: intuitively, I am the thing that changes when I go from sitting to standing; similarly, if work Wchanges, it is W that changes, not its relations to performance rules (cf. Lewis 1986b, 203-4).

I am sure that Bach would be surprised to hear his monumental Mass (in B minor) performed in what to him would have been the key of C# minor. Beethoven would be equally perplexed hearing his Fifth Symphony in C# minor. It is a fascinating question, independent of the present discussion, as to the logic and psychology of sameness and difference of historical pitch (Webster 1974, 66, n. 5).

The logic of it, according to the Aristotelian, is such that similar sound-universals are ordered by the same relations. The musical work is partly identical in virtue of the same relations and partly similar in virtue of similar sound-properties. The psychology of sameness and difference of historical pitch is independent of our discussion too, but I have the same intuition as Webster: Bach and Beethoven would be surprised by the difference in scale and they would judge it, I think, as the same but yet different although similar. The Aristotelian explains this judgement: what is the same about it are the musical relations and what is different but similar are the sound-properties. When we hear a performance in a different key to what is the standard or prescribed key we hear the same ordering but not the same tones, although the intervallic relations between the tones are similar.<sup>28</sup>

The final consequence of Musical Aristotelianism concerns the issue of whether the identity of a musical work is tied necessarily to a musico-historical context. For the Aristotelian, many different pianos (say) can instantiate the same work; they share the same universal. Furthermore, universals are typically embedded in larger situational contexts. A cricket ball having the universal *being red* is usually found on a cricket oval. This is the larger situational context in which the red cricket ball is embedded. Redness is wholly present in other contexts. It is here before me in my notebook in my office. Likewise, *being W* can be embedded in different situational contexts. Performances of W are identical (to some degree) with respect to *being W* but differ with respect to the larger situational context). Therefore, structural universals are individuated in terms of their constituents, i.e., their 'contents', and not their contexts. Since we are identifying musical works with structural universals, the same principle of individuation applies to musical works.

Hence, the Aristotelian is *not* forced to say that the identity of a musical work is determined in part by its musico-historical context. The Aristotelian is free to reject Levin-

<sup>&</sup>lt;sup>28</sup> Arguably, more should be said on the practical side about key changes. It might be fruitful to introduce normative aspects of musical practice to explain nuances in key changes. Hence a change of key is one factor that may determine when a performance is normative or not. Of course, the details are messy because musical practice is messy. Moreover, there is the question of improvisation and decoration of certain melodies in performances, as specified in the score. The improvised components are often different in each performance, but so long as the right musical relations are instantiated according to a certain set of performance rules, the work is the same in the senses I specified. Perhaps, change of key interacts with how sounds are elicited by musicians, which may need to be factored into judgements about whether a musical work in one era is permitted to be performed in different keys. Thanks to a referee for drawing my attention to these issues.

son's condition that a musical work 'must be such that composers in different musicohistorical contexts who determine identical sound structures invariably compose distinct musical works' (Levinson 1980, 14). The Martian Beethoven in his musico-historical context on Mars scored the same work as Beethoven on Earth (for this example, see Walton 1988, 238). If the Aristotelian rejects musico-historical contextualism, it is another commitment of their theory. If it is a dubious commitment, it is an unpalatable cost. If it is not dubious, it is not unpalatable (see Dodd 2007, ch. 9, for a rejection of Levinson's condition).<sup>29</sup>

But, interestingly, the Aristotelian can accommodate musico-historical contextualism. The Aristotelian need only posit some unique universal that is an essential part of the structural universal such as being embedded in context C. On this revised proposal, the structural universal would have a non-sound-universal as a constituent. The musical work instanced at the hands of Beethoven would then have a universal that is not shared by the musical work instanced at the hands of the Martian Beethoven. So the works are distinct, but only to a degree, given that the complexity of these structural universals entails (in this case) that they share many other universals as constituents. Nonetheless, if we normatively stipulate that a unique 'context-universal' is essential to the structural universal, we thereby distinguish the works of music. In other words, we individuate musical works according to content and a relevant context. The upshot is that Musical Aristotelianism is compatible with either musico-historical contextualism or its denial. Relatedly, Musical Aristotelianism is compatible with either sonicism or its denial. An accidental instantiation of a work would be that structural universal existing in whatever accidentally instanced it, insofar as the work just *is* that complex of universals. Davies has rejected sonicism, stipulating that a work's instantiation is pegged to causal chains that terminate in the creation of the work (Davies 2001, 167). As with musico-historical contextualism, for the Aristotelian to accommodate the denial of sonicism, some non-acoustic universal is required as an extrinsic feature of the structural universal that ensures some relevant causal constraint, or perhaps some instrumental constraint. While I am attracted to sonicism, my Aristotelian theory does not force me to commit to it or reject it. The upshot is that Aristotelians can decide either way, depending on the outcome of the debate about sonicism.<sup>30</sup>

### 5. Defending Musical Aristotelianism

<sup>&</sup>lt;sup>29</sup> I agree with Puy's (2020) argument that Levinson's ontology does not entail a commitment to musicohistorical contextualism. It provides another reason for the Aristotelian to remain neutral on this debate.

<sup>&</sup>lt;sup>30</sup> Dodd (2007, ch. 8) and Kivy (1993) favour sonicism, whereas Davies (2001, 60-71) and Levinson (1980) reject it. A recent experimental study has shown that folk intuitions favour some sort of sonicism (Sigutė Mikalonytė & Dranseika 2020). Musical idealism, by contrast, comes with the extra baggage of denying sonicism (Cray & Matheson 2017, 712, n. 23).

The main objection against Musical Aristotelianism is found in Wollheim's (1980, §35) influential argument for musical works as types, which amounts to an argument against musical works as universals. In this section I refute this objection. Wollheim's argument can be reconstructed as follows:

(P1) The relation between musical works and their manifestations must be as intimate as possible.

(P2) If the relation between musical works and their manifestations must be as intimate as possible, the appropriate relation is that of type to token and not the relation between universal and particular.

(C1) Thus the appropriate relation is that of type to token and not the relation between universal and particular.

(C2) Therefore, musical works are types (and so not universals).

Wollheim's argument cuts across the Platonic-Aristotelian divide, entailing a rejection of both the Aristotelian theory and any Platonic theory that identifies musical works with Platonic universals (and not with types). My refutation of Wollheim's argument is welcome news for these sorts of Musical Platonists as well.

Let us begin with (P2). Why is it true? A relation between two entities is intimate to a certain degree when they share a certain number of the same properties non-analogically and these properties are 'transmitted' non-causally between the two entities. The reason why tokens and types share their properties is *because* the properties of the tokens are transmitted non-causally to their types (Wollheim 1980, 76). The unique case of non-causal transmission between tokens and types involves only the properties that the tokens have in virtue of being tokens of a certain type. The type *Red Flag* is red and so are all its tokens. In the case of universals, this sort of transmission is not possible. The properties that a particular has in virtue of being an instance of *F* cannot be transmitted from instances of *F* to *F*, for such a case of transmission results in predicating *being F* of *F*, which is nonsense because *being F* just is *F*. Instances of red are red but *redness* is not itself red. The argument for (P2) hinges on the following principle, where ' $\Leftarrow$ ' stands for 'grounds' such that 'p  $\Leftarrow$  q' means 'p grounds q':

(T) If x is a token of  $y \leftarrow x$  has F, then F is transmitted from x to y.

In other words, if x has F because x is a token of y, F is transmitted from x to y; e.g., if flag1 is red because flag1 is a token of *Red Flag*, red is transmitted from flag1 to *Red Flag*. The properties of the token that the token has *in virtue of* being a token of some type ground the transmission of the properties of the token to the type. As Wollheim writes, '... those properties that a token of a certain type has ... in virtue of being a token of that type will be transmitted to the type' (1980, 77).

(T) does not capture the phenomenon that Wollheim needs for his argument to work. If F is transmitted from a token to its type, the type has the property *because* the token does. However, according to (T), flag1 is red because it is a token of *Red Flag*. If flag1 is red because flag1 is a token of *Red Flag*, flag1 is red because *Red Flag* is red. Since flag1 is a token of *Red Flag*, it has the properties that make it a token because of the properties of the type: *Red Flag*. Therefore, the ground for the fact that properties are transmitted non-causally between type and token is symmetric. If it is symmetric, it is not asymmetric. But it needs to be asymmetric so that we can explain why the relation between type and token is more intimate than the relation between universal and particular. So the argument for (P2) fails.

Let us consider (P1). It too is questionable. Why must the relation of a musical work to its manifestations be as intimate as possible? If the Aristotelian account is a coherent position, it might be the case that the relation between a musical work and its manifestation is not as intimate as possible. So the Aristotelian has no motivation to accept (P1). From the Aristotelian's perspective Wollheim sets the bar too high for no reason. Incidentally, Wollheim's restriction only rules out the transmission of properties that particulars have in virtue of being instances of a universal. But these sorts of properties are not relevant. What are relevant are aesthetic properties, and universals can have these sorts of properties, as Wollheim admits (1980, 77): being exhilarating is had by Redness and its instances; Beethoven's Ninth Symphony is also exhilarating and so are its instances. However, Wollheim might insist that we need to explain how the work has properties like being in A major. Luckily, there is a sense in which being in A major is had by the work, according to the Aristotelian: it is in virtue of this universal being a constituent of the work that the work 'has' it, in the same way that a bundle theorist about substances says that this table in virtue of having *being hard* as a part has the property of *being hard*. Now, this might sound odd, but it is not incoherent and indeed it follows from the account of structural universals that I articulated. Overall, the logically trivial thesis that properties of tokens of a type are shared by the type they are a token of can form no basis for the substantive claim that musical works cannot be universals. Wollheim's objection has been refuted.

#### Conclusion

Musical Aristotelianism has been overlooked in debates about the nature of musical works. I began by noting the theory's explanatory power in the service of five plausible intuitions about musical works. I argued that the view directly addresses the issue of explaining the complexity of sound structures, whereas Musical Platonism offers no real account. This argument implied that a simple version of Musical Aristotelianism is inadequate and that musical works should be identified with a certain kind of immanent universal, namely, structural universals. I proposed an extension of the standard account of structural universals from mainstream metaphysics in order to show how Musical Aristo-

telianism can identify musical works with structural universals. I discussed four consequences of the theory as regards specific issues in debates about musical works. Finally, I defended the theory against the main objection in the literature. I conclude that Musical Aristotelianism is a genuine competitor in debates about the nature of musical works. Aristotelians have more work to do to argue that their theory is superior to its competitors, especially Musical materialism. There are challenges and further objections that Aristotelians must answer as well, but a complete defence of the view is the subject of another paper.<sup>31</sup>

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