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Document Version
Peer reviewed version

Citation for published version (Harvard):
Curry, B 2018, Music and Reality. in E Sheinberg & W Dougherty (eds), *Routledge Companion to Musical Signification.* Routledge.

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Introduction

In the study of musical signification, the semiotic theories of the American pragmatist philosopher Charles Sanders Peirce have been a touchstone. This chapter outlines the role of the Peircean categories in understanding musical signification, arguing that Peircean thought should lead us to place special emphasis upon a mind-independent reality. The difficulties encountered in tracing musical meaning to real things and events is then addressed through a consideration of Raymond Monelle's Peircean analysis of musical topics (the pianto and the sarabande). It is argued that a full understanding of musical signification will recognise a causal underpinning for musical events and behaviours but will, nevertheless, also grant a vital disconnect between the space of musical meanings and the causal nexus that is the ultimate reality of the world. In developing this picture this chapter draws heavily on the thought of the highly influential American neo-pragmatist philosopher Wilfrid Sellars.

Peirce, signification and reality

The Peircean categories – firstness, secondness and thirdness – are most commonly encountered as sign types: icon, index and symbol. Because they articulate Peirce's fundamental categories, to which, it is claimed, all phenomena can be reduced, these sign types appear both exhaustive and penetrating in their analytical potential, whilst remaining capable of insight into the most trivial of actions, signs and meanings. They allow us, it seems, to distinguish between meanings or connections that derive from shared qualities (e.g. colour, shape and timbre), from causal/actual connections (e.g. kinetic, spatial and temporal connections), and from law-like connections (e.g. habitual association and pattern-governed processes). This might allow us to conceive more clearly, how, in the case of an icon, the quality of a slow musical work might signify slow human activity, or how, in the case of an index, a particular set of musical traits might signify a particular performer (who ostensibly caused the traits in the first place), or how, in the case of a symbol, a national anthem might be habitually associated with one nation and/or territory rather than another.

   Also important in Peirce is the emphasis placed on reality. The category of secondness or indexicality is, in key respects, the most fundamental of the categories. It is towards secondness as actuality, that all inquiry is aimed, and it is from secondness that all knowledge of the world stems. Thus, Peirce's philosophical outlook is, in important respects, decidedly modern: he insists upon the existence of a mind-independent reality and, furthermore, insists that our understanding of this reality can be advanced through scientific inquiry.

   A further Peircean insight concerns the interconnection of sign functions and reality. In studying musical signification, we might assume that reality need not concern us excessively. The faun of Debussy's prelude has no basis in reality, we might claim, so surely, we need not consider any connection to a real world, only to a world of fantasy. But this would be a mistake. For not only, as Peirce notes with reference to the phoenix, do real descriptions of fantastical creatures exist, such creatures do, in fact, have every basis in reality (Peirce [1903] 1998: 295). Fauns may not exist but the goat and the human, from which the idea faun derives, do.

Peirce's position on the role of the real world in human thought is decisively laid out in a relatively early article titled 'Some Consequences of Four Incapacities'. In it he claims that:

> 1. We have no power of Introspection, but all knowledge of the internal world is derived by hypothetical reasoning from our knowledge of external facts.
> 2. We have no power of Intuition, but every cognition is determined logically by previous cognitions.
> 3. We have no power of thinking without signs.
> 4. We have no conception of the absolutely incognisable.
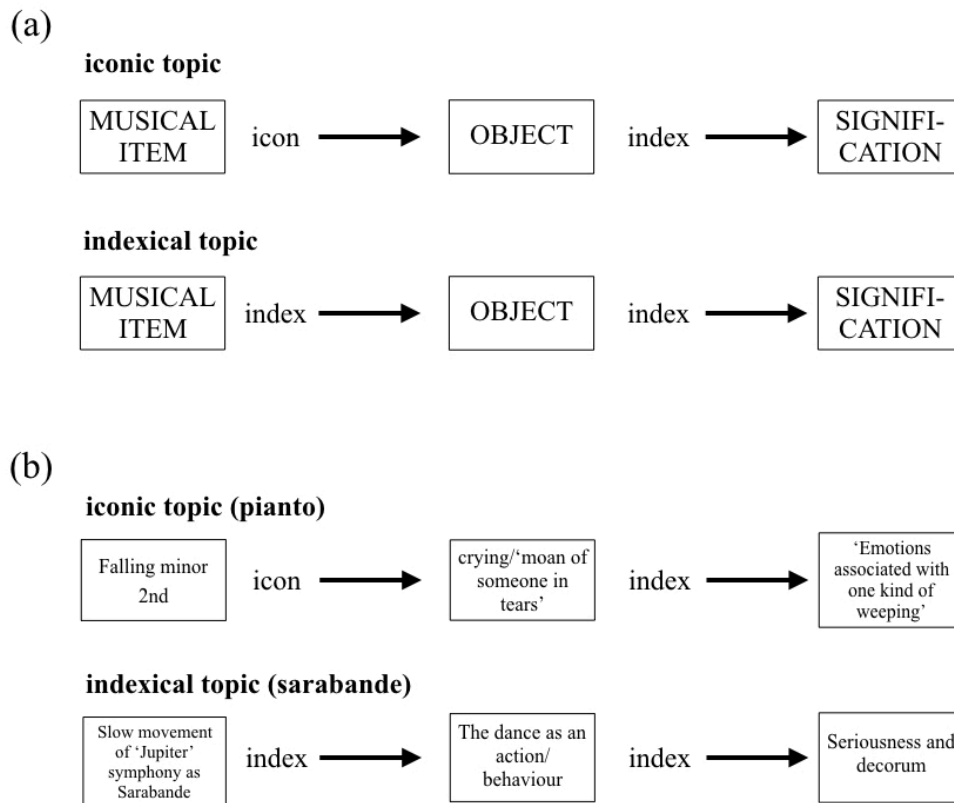>
> (Peirce [1868] 1992: 30)

Peirce forms a picture of mental content entirely rooted in our experience of the real, articulated through interconnected categories. Through action, we knock up against the world (secondness: the object) such that percepts (firstness: signs) develop into further thought (thirdness: interpretants). The external world constitutes the external facts and these bring about the cognitions (signs/interpretants) that logically develop, one from the other. Musical signification, then, from a Peircean perspective, must ultimately derive from reality even when the signs we use in our thinking may seem fanciful or wholly mental.

Peircean signs and music

A useful example of how Peircean sign types can be deployed in attempting to elucidate musical meaning is found in the second chapter of Raymond Monelle's *The Sense of Music* (2000). In it Monelle argues that whilst the musical topic as codified by Ratner is essentially symbolic (because it is controlled by rules or conventions), it can be further analysed by appealing to the icon/index distinction. Monelle posits a two-fold process whereby music signifies. In his examples (pianto and sarabande) the first stage can be either iconic or indexical and signifies an 'object', which, it seems, has a relatively clear relationship with reality. This object, in turn, indexically signifies a 'signification' which is more abstracted or generalised. Monelle's diagram is given in Figure 1a and the entities he has in mind for each of the terms in boxes are added by me in Figure 1b drawing on the main body of Monelle's text (2000: 18).

Figure X.1

(a)

iconic topic

| MUSICAL ITEM | icon → | OBJECT | index → | SIGNIFI-CATION |

indexical topic

| MUSICAL ITEM | index → | OBJECT | index → | SIGNIFI-CATION |

(b)

iconic topic (pianto)

| Falling minor 2nd | icon → | crying/'moan of someone in tears' | index → | 'Emotions associated with one kind of weeping' |

indexical topic (sarabande)

| Slow movement of 'Jupiter' symphony as Sarabande | index → | The dance as an action/ behaviour | index → | Seriousness and decorum |

There is surely little doubt that Monelle brings us closer to understanding the musical topic through his discussion, but there are limitations. Consider first Monelle's claim that the pianto signifies the moan of someone in tears iconically, that is, through resemblance or shared qualities. This is a reasonably clear case of a Peircean icon in that the music and the moan might be said to share the quality of falling or the shape of tension followed by release (something that is heavily encoded but that need not undermine Monelle's point). But is there not also a causal connection here? Could it not be said that humans have developed the habit of articulating the musical pianto in response to the sounds of moaning and therein lies a causal relationship, albeit a highly complex one. Like the shadow then the pianto, I would argue, is simultaneously iconic and indexical, it is just that the shadow is not stylized like the pianto because it is not fed through human behaviour hence the lower levels of complexity.

Now consider Monelle's claim that the metric structure of the slow movement of the 'Jupiter' signifies the act of dancing (as an object) indexically. The index here is conceived in line with Peirce's example of a bullet hole in glass. Thus, we can work back from the 'object' to the 'musical item' to identify a causal link. In the case of the sarabande, then, we have a fairly clear index in the way that the dance as a real-world action or behaviour causes the musical item to be structured and articulated in a particular way. The arrow of signification subsequently works the other way so that the music signifies the dance just as the bullet hole signifies the bullet. But again, the icon/index distinction seems tenuous. Surely the act of dancing also shares qualities with the meter and articulation in Mozart's slow movement – the qualities of temporal shaping/organisiation – so the relationship is, again, just as successfully analysed in terms of iconism as it is in terms of indexicality.

The ambiguities here stem, I would suggest, not from faults in Monelle's grasp of Peirce, but from ambiguities in the Peircean categories themselves. The example of the

bullet in the glass is a case in point. The bullet caused the hole so the hole is an index of the bullet's shape and its path of travel but, by that very stroke, the bullet also shares qualities of shape and position that are, by all accounts, an indication of iconism. Indeed, I would go so far as to claim that any indexical connection can be recast in iconic terms. Similarly, any iconic connection can be reconceived, however complexly, as a causal relationship unless the connection relies upon a simple reproduction of qualities that, as Eco (1976: 204-17) has compelling argued, entails no process of signification: my white lamp does not signify the white paper in front of me; it simply happens to be approximately the same colour. The colour of the paper may render it a useful sign for the lamp in certain contexts but such a context would then link the lamp and the paper in a causal, that is indexical, nexus. The idea that a shared quality of whiteness can be the primary motivating factor in such sign making contexts is, I would argue, misleading.

Having queried the distinction between the iconic and indexical in Monelle's example, we now turn to the distinction between the objects and the entities they come to signify. In doing so, we must firstly note that although Monelle is working in an ostensibly Peircean theoretical context, it is far from clear whether he conceives the object in concrete terms (i.e. as an actuality) as Peirce would. The object, for Monelle, is surely something more concrete than the signification, but we should bear in mind that Monelle, wisely, it seems to me, keeps in play the question as to what extent the object concerned is something real as such. Indeed, Monelle goes on to state that 'music does not signify society, … literature [a]nd, most of all 'it does not signify "reality"' (2000: 19). The quotation marks around 'reality', perhaps indicate that Monelle is, altogether, uneasy with such a concept and whilst we may query such an apparent rejection of the role of reality in human understanding and behaviour, there is an important reason, I think, for Monelle's uneasiness with the role of reality in musical signification.

The arrows in Monelle's diagram suggest a process of signification that runs from musical item to object and then to a signification that is more general, but, nevertheless, somehow more accurate in its account of the meaning posited. These arrows suggest something of the thinking we find in Peirce. In the case of the bullet hole, the arrow of causation runs from bullet together with its movement to the hole in the glass and then, on inspection of the glass, the arrow of signification runs in the opposite direction where the bullet hole (through an interpretetant) brings to mind (or provides evidence for) the actual bullet and its movement. In Monelle's account, in the same way, a generalised behaviour, that can be described as seriousness/decorum, becomes manifest in (or plays a role in causing) the dance known as the sarabande and this leads to (or plays a role in causing) the musical item. In listening to the musical item the arrow is reversed, such that the music can be said to signify seriousness with reference to dancing (and perhaps the Spanish court).

But how, we might ask, can one claim that the dance (as a set of behaviours) caused the musical item? Surely the musical item is just as likely to have caused the dancing. The idea that seriousness and decorum caused the dance is similarly problematic. Surely a better understanding would be that the very notion of seriousness and decorum we have in mind *evolved* in relation to the dance just as a certain kind of sound (the music) and a certain kind of bodily movement (the dance) evolved in relation to one another.

Such a way of understanding signification processes draws into question the Peircean framework in which reality can be straightforwardly drawn into meaning making processes. Monelle, it seems to me, is right to be uneasy with the idea that reality is referenced or signified by music. However, it would be a mistake to dispense with a mind-independent reality altogether, it would also be a mistake (pace Monelle) to suggest that musical meaning has nothing to do with reality.

Sellars, music and the logical space of reasons

I have identified two key concerns with the application of Peircean thought to music: (1) the problem of distinguishing the iconic and the indexical and (2) the problem of positing causal reality as the basis of musical signification. We can overcome these problems through engaging the work of Wilfird Sellars, who, in certain key respects, can be understood to develop key ideas introduced by Peirce.[1] Let us begin by recognising that in encountering (1) and, in particular, (2) we are, in a sense, caught between two horns. The first is a Peircean insistence that all thought derives from reality or external facts. The second is a Monellean insistence that musical signification does not concern reality at all.

To move through these horns, we need to open up a space that whilst ultimately limited by reality can, nevertheless, be understood as fundamentally distanced from the causal realm.[2] This space is compellingly theorised by Sellars and termed the logical space of reasons. To understand it, it is useful to first consider another of his most influential concepts: the myth of the given.

It is tempting think, as Peirce appears to have done, that our knowledge of the world derives from a direct experience of the things (objects and their qualities – secondness and firstness) that constitute it, and that these experiences are subsequently brought under concepts (rules – thirdness) to form fully fledged thought. For Sellars this is the myth of the given: the claim that experience can be both immediately given to the senses and at the same time epistemically efficacious. Sellars lays out the myth of the given in one of the most influential philosophical works of the twentieth century, *Empiricism and the Philosophy of Mind*. Triplett and deVries provide a useful summary:

> Sellar's argument against all forms of giveness focuses on (1) that the given have some positive epistemic status in its own right, (2) that it have this status in a way that renders it epistemically independent of all other knowledge, and (3) that it be epistemically efficacious with respect to other elements of a person's epistemic system.
>
> (Triplett and deVries 2000: xxxi)

In simple terms the difficulty is this: if some experience is to act as the foundation for knowledge then it must allow inference; it must, in a sense, be some sort of mental entity that can act as a basis for reasoning, that is, can justify the inferences considered to follow from that mental entity. But if some experience is such a mental entity then it is not independent of mind, and cannot provide the access to the real that is assumed of it. Another way to approach this point is to consider that there is no experience that is not conceptual. There is, for example, no sense data that is not always already conceptualised.

In recognising the myth of the given we begin to open up the space we have been seeking. It allows us to understand how musical meaning can be both distanced from reality whilst remaining ultimately subject to the real world of causal processes. If there is no epistemically efficacious data given directly to the mind there must be a fundamental disconnect between music's reality and the meanings the mind develops through listening processes. The space of reasons, however, is ultimately beholden to the real, for the space of

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[1] Chief amongst these is Peirce's central claim that human understanding progresses towards truth. Sellars posits (as a regulative idea) the prospect of a language that will ultimately allow us to accurately picture the world. He terms this language 'Peirceish'. For a summary of 'Peirceish' as well as the overlap between Sellars and Peirce's conceptions of truth see Hooker (1976).

[2] In previous work, I have looked to overcome this difficulty by retaining an rigorously Peircean framework while positing the notion of the contested index (Curry 2017).

reasons is not to be explained in terms of transcending or going beyond the real. It is explained in terms of human behaviours and habits in the world, these are not transcendent ideas but normative operations situated within a psychological-social-historical network thoroughly penetrated by a causal reality.

Normativity, then, is vital in understanding the space of reasons and, indeed, Sellar's philosophical system as a whole. O'Shea, for example, dubs Sellars' philosophy 'naturalism with a normative turn' (2007), and given the importance of this term in Sellars and in modern philosophy generally, it is perhaps surprising that it has been afforded so little attention in the study of music. The notion of norms does gain some currency in music theory following Hepokoski and Darcy's use of the term in formulating sonata theory, where it indicates more-or-less consciously deployed and recognised formal devices in sonata-form movements. But sophisticated decisions of this sort are only a part of the far-reaching notion of normativity as it is deployed by Sellars in mapping the logical space of reasons. Normativity concerns not just highly sophisticated decisions such as those outlined by Hepokoski and Darcy, it concerns far more fundamental decisions that characterise human behaviour. The notion of normativity captures *biologica*l and *social* norms of human behaviour and thought and is not, therefore, exhausted by intentional human behaviours.

Musical meaning is distanced from the world because the meanings so often postulated as musical (including those considered as music theoretical) concern normative patterns of behaviour which relate only indirectly to real things and events. The indirect connection (or 'hook up') does, however, provide a means of explaining an ultimately *causal* underpinning, even though the logical space of reasons and the normative processes that define it cannot themselves be reduced to a causal reality. We shall now consider in more detail how Sellars maps the space of reasons as a complex of normative operations before looking in some detail at how reality and (musical) reason hook up.

Topics as normative operations in the space of reasons

Understanding musical meaning in terms of normative operations within the space of reasons has profound implications. This can be usefully explored by returning again to the notion of musical topics. Consider Example 1: bars 1–13 of the finale of Haydn's symphony No.39, henceforth bb. 1–13. After hearing a particular performance or 'sounding' of these bars, I might state 'bars 1–13 are Sturm und Drang' which we can formulate (following conventions in the study of logic) as:

S&D bb.1–13.

We can adapt Sellars schematisation of the 'standard' conception of such statements to give the diagram in Fig. 2 (Sellars 1985: 285):
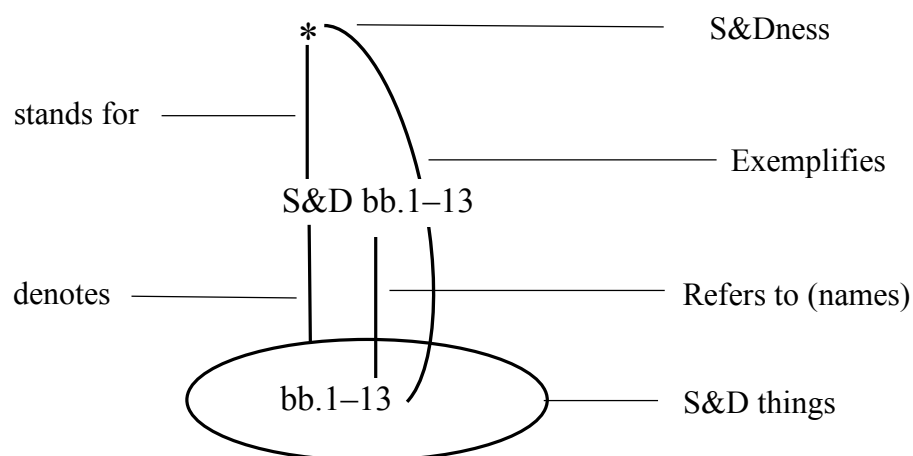
Example X.1: Haydn, Symphony No. 39 in G minor, 'Tempeste di mare', Hob I:39, finale, bars 1–13

Figure X.2: Sellars' schematization of the 'standard' conception of predication adapted to concern Sturm und Drang in bars 1–13 of the finale of Haydn's Symphony No. 39.

In this model of the standard conception, both 'S&D' and 'bb.1–13' are taken to be singular *referring* expressions. They are thought to be meaningful because they refer or relate to some sort of entity. So bb.1–13 refers to, or names, a particular sounding of bb. 1–13, whereas S&D refers to S&Dness. The label 'bb. 1–13' is more straightforward as it names a particular thing, a particular sonic event (in music this point might be complicated by the work concept but it need not be). The more complex dual role of S&D, in the standard conception, results from the idea that, to paraphrase Sellars, 'S&D' is semantically related both to S&D things and to S&Dness, the property 'S&D-things' have in common (Sellars 1985: 286).

Sellars works through the problems this picture throws up. He is particularly concerned to demonstrate that the standard conception of (in this case) an S&Dness that is exemplified by bb.1–13 and other S&D things (in this case sounding entities) is problematic. Unlike the naming connection between bb.1–13 and a particular bb.1–13, which Sellars retains (albeit with considerable qualification), the exemplification connection is jettisoned. For the notion of S&Dness as a more primitive entity that can be instantiated by an object or event is not sustainable. One way to demonstrate this is to invoke, following Sellars and deVries, Bradley's paradox.

In this paradox we can begin by recalling that we represent the claim that bb.1–13 is S&D as follows:

S&D bb.1–13.

If we adhere to the model in Figure 2 we will read this connection (between S&D and bb.1–13.) as a *predication relationship* between S&Dness and bb.1–13, whereby bb.1–13 as a single entity is said to exemplify S&Dness. Now, in doing this we are bringing to bear a new concept, exemplification, in order to explain 'S&D. bb.1–13'. But in doing this we are again invoking predication: just as we predicated S&Dness of bb.1–13, we are now predicating exemplification of 'S&D. bb.1–13'. This can be written as follows:

Exemplification (S&D bb.1–13.)

We hereby enter into a vicious regress. For we must now surely recognise that in positing 'exemplification-ness' we are invoking a further process of predication which acts to exemplify 'exemplification-ness'. This can be written as follows:

Exemplification (Exemplification (S&D. bb.1–13.))

The key point here is that by positing abstract entities such as S&Dness to which real world entities relate we are obliged to recognise an infinite series of further entities each reproducing a comparable abstract relational idea set up in the initial predication. For Sellars, the answer to this and related problems with predication is to understand entities such as S&D not as qualities/properties in the world but as a normative entities that reside in the logical space of reasons. Thus a claim that 'the opening passage of Haydn's symphony (bb.1–13) is Sturm und Drang' is not primarily a statement about how the world actually is but a statement about, in Levine's word 'the normative properties that govern the linguistic tokens the mind uses in its thinking' (Levine 2007: 252). It is better understood as a statement about the kind of role (defined by normative processes) played by 'Sturm und Drang' or sentences deploying these terms in a linguistic economy. If we are to conceive topic labels as statements about musical meaning we need to be clear that 'meaning' here does not concern reference to existent entities but concerns instead a normatively defined role for the topic label in question. Statements about topic labels, then, are metalinguistic: they tell us about the kinds of roles terms like 'Sturm und Drang' or 'pianto' or 'sarabande' play and relate only indirectly to reality.

From the perspective of Peircean theory, what Sellars has done is to problematise the notion of a separable iconism that somehow governs a qualitative dimension of actual things. This allows us to avoid the problems encountered earlier of distinguishing between iconic and indexical functions. Furthermore, we are now able to move away from Peirce's highly speculative picture of a universe reducible to his three categories (quality, actuality and rule), described by the leading Peirce scholar Christopher Hookway as 'mind-numbing' (1985: 4),

towards a picture in which qualities reside in the logical space of reasons and in which reality is ultimately constituted of causal processes – in Sellarsian terms: a swarming interaction of colourless microphysical particles.

Sellars provides a diagram designed to correct the traditional understanding of predication (for our purposes, the process by which qualities are ascribed to things) (Sellars 1985: 320). I have again adapted it to demonstrate the example of Strum und Drang in Haydn's symphony (Figure 3). In this diagram Sellars uses the term individual constant or INDCON for something approaching a Peircean index, that is, a term that refers to an actual thing. Unlike, the Peircian index, however, an individual constant does not relate directly to actual things, which thereby provide a more primitive relation to the world (secondness) as the basis for fully-fledged thought (thirdness). This would be to fall again into the myth of the given. Individual constants hook up with the world only by virtue of what Sellars terms psychological-social-historical (or PSH) relations. They do not directly refer to things in the world but, instead, get caught up in reality as actual existing acoustic entities, what Sellars terms 'natural linguistic objects'. This process of 'getting caught up' or 'hook up' is subject to PSH relations and can be termed 'picturing' (a term derived from Sellars reading of Wittgenstein) or linguistic representation (LR).

Figure X.3: Sellars' schematization of a corrected conception of predication adapted to concern Sturm und Drang in bars 1–13 of the finale of Haydn's Symphony No. 39.
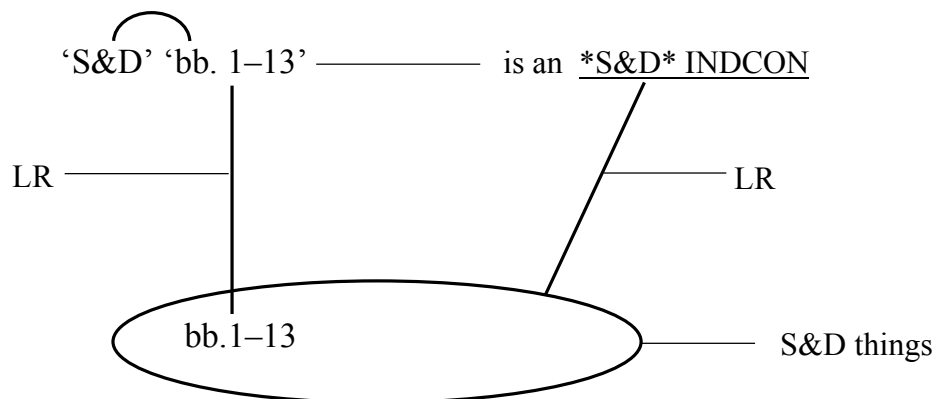
In figure 3, we can now see that both bb.1–13 and *S&D* connect via 'linguistic representation' or LR to actual S&D things. But notice that it is not S&D as such (and certainly not an abstracted S&Dness) that connects to the real world of S&D things. The asterisk quotations indicate that it is the 'sign design' S&D concatenated with 'bb.1–13' that connects to reality. That is, the pattern illustrated between the asterisks, regardless of assumed meaning (i.e. the sign design), concatenated with 'bb.1–13' forms the basis upon which S&D comes to be connected to reality. Or, in Sellars' words:

> [T]he truth is that by virtue of being an 'a' [or a bb. 1–13] concatenated with an *f* [or *S&D*], an 'fa' is an 'a' which has a character by virtue of which it is semantically associated with f-things.
>
> (Sellars 1985: 320)

A key point here is that the association is semantic. It is 'semantically assertible' that 'bb.1–13 is Sturm und Drang', but that does not mean that a more primitive Sturm und Drang(ness)

is being instantiated in bb.1–13. Sturm und Drang does not exist in reality. We see in figure 3 that it does not relate to reality (S&D things) at all directly. This is because it resides like so much musical meaning in the logical space of reasons. When we talk about musical topics as having certain meanings, then, we are not connecting music to reality (or only very indirectly) we are, instead, entering into a categorisation of normative functions. We are saying, in effect: take any performance of bars 1–13 of the finale of Haydn's Symphony No. 39 and, under normal circumstances, it will be semantically assertible that it is Sturm und Drang.

The music-reality hook up

When Sellars presents the diagrams that I have adapted in Figures 2 and 3, he is not discussing music. He is discussing language. Where I discuss 'S&Dness', Sellars discusses 'redness'. Thus the points I am making concerning music are formulated in relation to language. For this reason, the long-standing problem as to why or how language is able to refer to the world, when music seems unable to do so drops away, but perhaps not in the way we expected. As it turns out, language, like music, primarily operates within the space of reasons as a complex of normative functions, which don't refer to the world but, instead, can be said to get caught up in the world through the role they play in human behaviours, which we can, in turn, frame as a complex of PSH relations (pychological-sociological-historical relations). We will now consider this 'getting caught up' in more detail.

When we discuss musical meaning we have to be careful to make an important distinction. This can be framed in Peircean terms as the distinction between:

(1) music as sign/interpretant
(2) music as object

From a Sellarsian perspective we might reframe this to give:

(1) the role music plays in hooking up with reality
(2) the role language plays in hooking up with music's reality

Where 'music's reality' is the actual physical reality of vibrations in a medium in the world.

In our discussion of S&Dness we have been treating music as an object. We have been considering the role language plays in hooking up with music's reality, in that we have discussed the way linguistic terms such as S&D (and by extension pianto, sarabande and other musical topics) hook up with actual S&D things – i.e. particular sounds situated in time and space. I will claim that music's role in hooking up with reality follows precisely the same patterns as the hook up between language about music hooks up with actual music. But first let us consider the hook up in more detail.

In his rethinking of predication, what Sellars has done, in O'Shea's words, is to 'trade the problem of abstract entities [like redness and S&Dness] for the problem of norms' (2007: 71). Norms can be understood as rule-following processes. In 'Language as Thought and as Communication' ([1969] 2007) Sellars makes an important distinction between these rules:

Ought-to-do rules: where rules are followed with an awareness of the rules
Ought-to-be rules: where rules are followed without an awareness of the rules

Ought-to-do rules involve intentionality and take the form 'if one is in circumstance C, then one ought to do A'. Ought-to-be rules do not involve intentionality and take the form 'Xs

ought to be in state φ, whenever such and such is the case'. Ought-to-be rules form the groundwork upon which ought-to-do rules are built. In sonata theory, the self-conscious rule following around, say, which medial caesura to deploy in a given sonata, will be an ought-to-do rule. But such an ought-to-do will be underpinned by expectations of certain states (i.e. ought-to-be rules) such as instrument construction (a piano ought to be comprised of a certain set of keys) tuning systems (an instrument ought to be tuned in such and such a way) and the system of tonality (keys ought to be established, departed from and re-established).

In understanding the hook up between the space of reasons and the causal natural order, Sellars posits the example of an ought to be rule. Which he formulates thus: 'one ought to feel sympathy for bereaved people' (Sellars [1969] 2007: 60). This might appear to be an ought-to-do rule in that the levels of sophistication seem high and feeling sympathy is something we do. But, on reflection, we recognise that we don't generally intend to feel sympathy for bereaved people it is rather something that people find themselves experiencing within a certain cultural context and which they are capable of cognising as such. 'One ought to feel sympathy for bereaved people' then is actually a form of ought-to-be rule.

These same ought-to-be rules are key to understanding how language and the space of reasons hook up with the causal order and how music theoretical language (by which I mean sentences containing terms like Sturm und Drang, Romanesca or dominant chord), hooks up with music's causal reality. Important examples of 3 ought-to-be rules are:

(1) language entry transitions (a transition from world to language involving perception)
(2) intra-linguistic transitions (a transition from language to language involving inference)
(3) language exit transition (a transition from language to world involving volition/intention)

'Sturm und Drang' may have no actual existence but as a natural linguistic object it gets caught up in the causal order, the actual reality of music, by (1) language entry transitions: for example, when a student of music is disposed to respond to the sounding of Example 1 with the statement 'that is Sturm und Drang', (2) intra-linguistic moves: for example, when a student is disposed to make an inference from 'that is Sturm und Drang' to the statement 'that is minor' (3) language exit transitions: for example, when a student reliably responds to her own statement 'this is Sturm und Drang' by playing a recording of Example 1 or another Sturm und Drang passage.

So music-theoretical language, which involves sentences containing terms like Sturm und Drang, 'Romanesca' or 'dominant', does hook up with musical practice, but it hooks up through normative channels in the selective reinforcement and suppression of behaviours – a highly indirect connection. Music theoretic-language as normative, patterned-governed behaviour does not track music directly but in laying plain the normative functions of words such as 'Sturm und Drang' it does get caught up with music's reality as natural linguistic objects via entry, inference and exit transitions.

Recognising these points, it seems to me, puts us in a position understand the hook up between musical practice and reality, i.e. music as sign (Peirce), or the role music plays in hooking up with reality (Sellars). This connection, I argue, is made in much the same way that music theoretical language hooks up with reality. Music as vibrations in air has a highly complex but non-problematic causal connection to non-musical world. Music as abstract form, however, does not directly connect with musical reality. Our imagining of music in terms of abstracted shapes, forms and processes connects only indirectly with the reality of music. Music as abstracted shapes, forms and processes are, if you like, music about music – they have a meta-musical discursive role exemplified by scores, analytical charts and systems of numbers.

These abstractions are saturated by normativity and cannot be reduced without remainder to the world of objects and actions they are taken to represent (recall the myth of the given). They reside in the space of reasons. However, just as music's theoretical language tracks music's natural acoustic objects indirectly via entry, inference and exit transitions, our musical imaginings indirectly track the world of musical practice via entry, inference and exit transitions. These transitions are the playing of 'appropriate' music in response to non-musical things and actions (think of slow music at a funeral) or in introducing non-musical things or actions (a fanfare followed by the entrance of a person for instance). These transitions are ought-to-be rules that align non-musical events and musical events. They do not, for the most part, involve intentional rule following, but the following of rules that are second nature. So in playing slow music at a funeral there may be ought-to-do rule following, such as complex choices of particular pieces and how to perform them but there will also be a groundwork of ought-to-be rule following that leads us instinctively (albeit via bio-social training) to use slow music. These ought-to-be rules are enormously important in musical meaning. In the same way that they allow Sellars to explain how we come to find ourselves experiencing sympathy for a bereaved person, ought-to-be rules help us explain how humans might find themselves moving with a due sense of decorum and seriousness to a sarabande or how humans may feel an urge to weep, or find themselves contemplating weeping, on hearing the pianto. Furthermore, in the theory of ought-to-do rules underpinned by a groundwork of ought-to-be rules we can begin to theorise more convincingly why compositional practices, as a complex set of behaviours, might result in the deployment of the sarabande, the pianto or Sturm und Drang. The behaviours and the patterns they form are real even if the music-theoretical abstracta we develop in relation to them cannot ultimately be said to exist.

A neo-pragmatist, Sellarsian perspective on musical signification, then, allows us to radically rethink the processes by which music listening engenders meaning. In the emphasis upon an evolving, functionalist, role-oriented theory of communication and in the flat rejection of abstracta, Sellarsian thought certainly works against a naïve conception of musical signification – a conception in which music is naively conceived to operate as a relatively stable sign that signifies a specifiable entity. However, aspects of this naïve picture can be retained, it seems to me, for although musical meaning is now conceived in normative, non-referential terms it is conceivable as a practice that hooks up with reality in much the way that language does, allowing a complex process of meaning generation to be recognised even if the kinds of one-to-one correspondences of more naïve models have to be rejected. This, I would suggest, keeps the door open for musical signification to thrive as a vital practice that contemplates the fascinating interpenetration (the hook up) of music and world.

References

Curry, B. (2017) 'Valency–Actuality–Meaning: A Peircean Semiotic Approach to Music', *Journal of the Royal Association of Music* 142/2, 401–43.

deVries, W. A. (2005) *Wilfrid Sellars*, Chesham, Acumen.

deVries, W. A. and Triplett, T. (2000) *Knowledge Mind and the Given: Reading Wilfrid Sellars's 'Empiricism and the Philosophy of Mind'* (including the complete text of Sellars's essay), Indianapolis and Cambridge: Hacket Publishing Co.

Eco, U. (1976) *A Theory of Semiotics*, Bloomington, Indiana University Press.

Hooker, M. (1976) 'Peirce's Conception of Truth', in J.C. Pitt (ed)), *The Philosophy of Wilfrid Sellars: Queries and Extensions*, Dordrecht, D. Reidel Publishing Co.

Hookway, C. (1985) *Peirce*, London, Routledge.

Levine, S. (2007) 'The Place of Picturing in Sellars' Synoptic Vision', *Philosophical Forum* 38/8, 247–269.

Monelle, R. (2002) *The Sense of Music: Semiotic Essays*, Princeton, Princeton University Press.

O'Shea, J. (2007) *Wilfrid Sellars: Naturalism with a Normative Turn*, Cambridge: Polity.

Peirce, C. S. [1868] (1992) 'Some Consequences of Four Incapacities', in N. Houser and C. Kloesel (eds), *The Essential Peirce: Selected Philosophical Writing, Vol. 1 (1867–1893)*, Bloomington, Indiana University Press.

Peirce, C. S. [1903] (1998) 'Nomenclature and Divisions of Triadic Relations as Far as They Are Determined', in Peirce Edition Project (ed), *The Essential Peirce: Selected Philosophical Writing, Vol. 2 (1893–1913)*, Bloomington, Indiana University Press.

Sellars W. [1969] (2007) 'Language as Thought and as Communication', in K. Sharp and R. Bramdon (eds) *In the Space of Reasons: Selected Essays of Wilfrid Sellars*, Cambridge Mass., Harvard University Press.

Sellars W. (1985) 'Towards a Theory of Predication', in J. Bogen and J. McGuire (eds), *How Things Are: Studies in Predication and the History of Philosophy and Science*, Dordrecht, D. Reidel Publishing Co.