



DISCUSSION

REPLY TO BUDD

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I. INTRODUCTION

I want to begin by thanking Malcolm Budd for his review essay. I cannot but take this bout of sustained attention on the part of so distinguished a philosopher as a compliment, even if, in this case, something of a left-handed one. I shall address Budd's points in the order he presents them, defending or clarifying where I can and conceding where I must. Unless otherwise indicated, all page citations refer either to Budd's essay or to my book, *The Musical Representation*.¹

II. TWO INITIAL MISCONCEPTIONS

On Budd's first page (p. 60) we encounter two misconceptions. 'Extramusical content,' he paraphrases, 'is semantic content.' Then, in footnote 2, Budd characterizes 'semantic' (assuming, as seems reasonable, the inclusive 'or' of equipollence) as 'conceptual.' But I am at pains throughout the book to emphasize that extramusical content is *non*-conceptual, and merely models conceptual content. (Perhaps Budd actually meant to say 'non-conceptual,' for he does not fall into this error thereafter.) Be this as it may, in his footnote Budd cites my pages 88, 126, and 141. On these pages I say the following. 'Because this *musical* field structure is capable of modeling the structure of *semantic* fields, the organization of music models a dimension of conceptual organization without itself being conceptual' (*MR*, p. 88, *emphases original*). 'There is, moreover, a theoretical route to a psychological explanation of how the musical modeling of conceptual content, particularly the musical modeling of abstract conceptual content, might be achieved' (*MR*, p. 126). 'I argued that the musical surface contained field structure and that this allowed for the modeling of the structure of semantic fields [...]' (*MR*, p. 141). Budd continues: 'And it is in virtue of possessing extramusical content, not extramusical form, that all such music is programme music' (p. 60). This is contrary to my intentions. Since extramusical form is a variety of musical meaning, and since the field structure in the musical surface remains

¹ Malcolm Budd, 'Nussbaum's Virtual Musical Space,' *Estetika: The Central European Journal of Aesthetics* 52 (2015): 60–77; Charles Nussbaum, *The Musical Representation: Meaning, Ontology, and Emotion* (Cambridge, MA: MIT Press, 2007), hereafter *MR*.



a dynamic structure, the mere 'logical' progression of a musical sequence *can be its programme*. 'Depending on its style,' I say, 'a musical work will emphasize the modeling of semantic field structure, or extramusical form, as does much Baroque and early Classical music; or it will emphasize the modeling of extramusical content, as does music that is Romantic or overtly programmatic. All the music under consideration here will, however, do some of both' (*MR*, p. 126). Recall James Ross's (admittedly somewhat far-flung) comparison, cited on page 117, between semantic fields and the gravitational fields of general relativity. 'Although music is presented as a two-dimensional surface defined by axes of pitch and time,' I say (*MR*, p. 117), 'the contents of the listener-constructed mental models of the field structure contained in the musical surface are similarly multidimensional and dynamic, for musical meaning remains gestural and mimetic.' Budd claims: 'the idea of musical space is not needed for the idea of extramusical form' (p. 61). It may not be needed, which might explain why he finds the idea of extramusical form convincing (p. 61n4). But this is not the view of extramusical form presented in my book.

III. MUSICAL SPACE AS CYCLICAL

Budd rightly insists that the sense of return to 'the same again' upon arriving at the octave 'is *not* a return to the same position in space (musical space)' (p. 62n6). Of course it isn't, and who in his right mind would say it is? I did not intend 'the same again' to mean 'the very same location in pitch space'. The paradox to which I referred concerned the way in which tones standing in the octave relation sound both closer in musical space and farther apart in musical space, which I explained by contrasting frequency *difference* with simplicity of frequency *ratio*. The unison is close, indeed the closest interval in both ways: same pitch location and a frequency ratio of 1:1. The octave, on the other hand, is distant in pitch location, but also sounds close because the frequency ratio is 2:1. Before Budd dismisses all this as 'sleight of hand', he should have a look at Roger Shepard's helical model, which maps a five-dimensional musical pitch space onto three Euclidean dimensions.² The tones forming the circle of fifths are located around two-dimensional circumferential bands of a cylinder, with each band separated on the cylinder by a half step. The cylinder curls back on itself in a rising helical shape in three dimensions. Tones separated by the octave line up directly above and below each other on the helix, with each higher octave located on the next helical turn. Since Shepard's model is topological and not metrical, the notion of

² Roger Shepard, 'Structural Representations of Musical Pitch', in *The Psychology of Music*, ed. Diana Deutsch (New York: Academic Press, 1982), 343–90.

distance does not, strictly speaking, apply.³ Still, scalar musical motion proceeds step-wise along the helical coil until it 'returns' to the upper octave located one helical turn directly above.

IV. SCENARIO CONTENT

Budd claims that I diverge from Christopher Peacocke in holding that musical space is really, and not merely philosophically, solipsistic, because for Peacocke non-conceptual representational content is not 'autonomous', but requires supplementation (p. 63n10). However, it is not clear that there is a divergence, or much of one. What Peacocke says is this: 'I doubt that we could ever justify attributing genuinely spatial content to an organism's states going beyond such sensitivity [to higher-order properties of stimulation patterns] unless the subject were on occasion to employ states with these contents in identifying places over time.'⁴ I don't disagree with this. My claim is that the 'spatial content' of musical representations is *not* genuinely spatial, though Peacocke is a little vague about what 'genuinely' spatial content is. Presumably not required is complete 'S/Ojectivity', as Adrian Cussins calls it (see *MR*, p. 243), the capacity to construct a fully perspective-independent cognitive map. All that might be required is the ability to identify one's 'current location with one previously encountered'.⁵ The ability of many a non-human animal to 'identify' locations to this extent, say those of its nest or food cache, will fall short of complete perspective independence. 'Identification of places over time,' Peacocke continues, 'requires that states with scenario content contribute to the construction of a cognitive map around the subject. It is also highly questionable whether we can make sense of the subject's engaging in such construction unless he employs at least a rudimentary form of first-person thought, that is, unless he possesses at least some primitive form of the first person concept.'⁶ But again, just how rudimentary, how primitive may it be? Is it more rudimentary than the first-person concept Strawson's philosophical solipsist possesses? Well, one would think so. Every living thing has *some* primitive form of the first-person 'concept', since any living thing makes a fundamental self-other distinction in its self-preserving and self-protective behaviours. Peacocke, I believe, intends something rather more sophisticated than this but still less sophisticated than perspective-independent

³ Some sort of unit-free distance estimation in egocentric musical space might be applicable, however, which would depend on musical context. For elaboration, see Charles Nussbaum, 'Musical Perception', in *The Oxford Handbook of the Philosophy of Perception*, ed. Mohan Matthen (Oxford: Oxford University Press, 2015), 495–514.

⁴ Christopher Peacocke, *A Study of Concepts* (Cambridge, MA: MIT Press, 1991), 90.

⁵ *Ibid.*

⁶ *Ibid.*

conceptualization. Budd ignores, so far as I can tell, my efforts to present S/Ojectivity as a cognitive *achievement* that admits of degree. So nothing I say really conflicts with Peacocke's stated views about scenario content as I read him. 'Real' solipsism admits of degrees: the more cognitively primitive the creature, the more 'real' the solipsism.

V. MOVEMENT IN MUSICAL SPACE

Budd agrees that the analogy between apparently continuous musical movement from pitch to pitch and the Phi phenomenon is not apt (p. 64), but claims that the real problem is this: whereas the Phi phenomenon is an illusion, the audition of musical motion is not: 'But musical motion is not an auditory illusion: it does not sound to the listener as if a sound (something making a sound) is moving from one point to another' (p. 65). This comment, especially in light of the parenthetical addition, leads me to suspect that Budd has misunderstood my position. It seems that he thinks I believe that the motion we hear in music is an illusory presentation of the movement of a *sound-source*, the way the Phi phenomenon presents the illusion of a *light-source* moving in physical space. But that is not my view at all.

Budd asks, "What is (illusorily) perceived to move?" Not a sound (or source of sound) and not a scale passage or theme or melody' (p. 65). I agree with all these exclusions except for the first, properly understood: musical sound (but no *source* of sound) *is* perceived to move, albeit not in physical space. Hanslick famously described the phenomenology of musical experience as consisting of the presentation of 'tönend bewegte Formen', usually translated (idiomatically, but not quite precisely) as 'sounding forms in motion'. But this has always seemed to me not exactly right. After all, a scalar passage or a melody or theme is a sounding form, but Budd correctly denies that such things are as a general rule heard to be in motion.⁷ It would be better to say that the phenomenology of musical experience presents 'sound in formal motion', that is, sound tracing forms or figures in pitch space. The pitches themselves are not heard to move: they are the locations in musical pitch space between which the musical sound *seems* to travel.⁸ But the sound really does not move: various pitches are aurally 'illuminated' (sounded) sequentially. And in opposition to Budd, I insist that this *is* an illusion, for the simple reason that there is in fact no motion of any sort to be heard. The brain constructs this experience of sound in motion in musical space from

⁷ There are some exceptions. Sometimes a motif, which is a brief 'sounding form', will sound as if it is passed around among different instruments or groups of instruments.

⁸ Budd takes me to task for writing of 'sweeping eighth notes and vaulting fugal subjects' in the double fugato in the Finale of Beethoven's Ninth Symphony, which 'represents the notes and subjects as moving' (p. 65n13). I can't deny that he has a point. I should have said 'sweeping eighth-note and vaulting fugal subject figurations', or some such.

sequences of discontinuous, sounding, evanescent tones.⁹ Budd thinks I should say that Debussy, in the middle section of *Fêtes*, achieves the *impression*, not the *illusion*, of an approaching parade (p. 67). I can live with this. But I would point out that the impression depends upon an illusion, for nothing really moves at all.

Budd claims: 'Since musical space is supposed to be a feature space, a feature placing environment,¹⁰ nothing – no particular, enduring thing – could be perceived illusorily to be moving' (p. 65n14). That is true, if we mean by a 'particular, enduring thing' something like a Strawsonian basic particular. However, I went to very great pains¹¹ (but, apparently, pains still not great enough) to make clear that musical space is a feature domain and that the 'objects' in musical space do not satisfy the metaphysical identity conditions of basic particulars.¹² Moreover, musical object identity is not an all-or-nothing affair leaving only the options of basic particular or no object at all. It seems that Budd has not looked recently at Strawson's discussion of feature-placing language, on which, like Cussins, I rely. Non-human animals, I conjecture, are able to *track* moving objects in their immediate environments without being able to *individuate* them as persisting particulars in the Strawson way, since non-human thought does not satisfy Gareth Evans's 'generality constraint' (see *MR*, p. 243) and thus remains non-conceptual to the extent it is *not fully* conceptual. 'These difficulties,' says Strawson,

do not show that it is logically absurd to suppose that there might be a level of thought at which we recognize the presence of cat, or signs of the past or future presence of cat, yet do not think identifyingly of particular cats [...] it is logically possible that one should recognize the corresponding features without possessing the conceptual resources for identifying reference to the corresponding particulars. [...] Roughly, the idea of the cat-feature, unlike that of snow, must include the idea of a characteristic shape, a characteristic pattern of occupation of space. [...] Operating with the idea of reidentifiable particular cats, we distinguish between the case in which a particular cat appears, departs, and reappears, and the case in which a particular cat appears and departs and a different cat appears. But one could play the naming game [which is

⁹ Bregman asserts, 'music deals in chimeras'. Albert Bregman, *Auditory Scene Analysis* (Cambridge, MA: MIT Press, 1990), 508. The *OED* gives the modern meaning of 'chimera' as 'an unreal creature of the imagination, a mere wild fancy; an unfounded conception'. More on this in a moment.

¹⁰ Environments are not feature-placing, but language lacking subject-predicate structure is. Environments are feature *domains*. I can't be hard on Budd for this slip, however. I make it myself on page 222.

¹¹ 'What is of particular interest for us is that complete perspective independence seems to be *in principle not achievable* in the musical feature domain, for the simple reason that *there is only one way to move along the cognitive trails established by the composer*' (*MR*, p. 243–45, *emphases original*).

¹² This is what is intended by my claim (*MR*, p. 21) that 'there can be, strictly speaking, no virtual musical objects'. I deny that musical objects are particulars at all, holding them to be types whose tokens are *heard as* various appearances of virtual musical objects (see *MR*, p. 298–99).

limited to feature-placing language] without this distinction. One playing the naming game can correctly say 'More cat' or 'Cat again' in both cases; but someone operating with the idea of particular cats would be in error if he said 'Another cat' in the first case or 'the same cat again' in the second. *The decisive conceptual step to cat-particulars is taken when the case of 'more cat' and 'cat again' is subdivided into the case of 'another cat' and the case of 'the same cat again'*.¹³

I say that the 'idea of a characteristic shape, a characteristic pattern of occupation of space' that is part of 'the idea of the cat-feature' includes a characteristic pattern of cat-like movement in space.

Budd claims that I 'slide' from the illusion claim into a 'much weaker claim, namely that musical movement is a matter of suggestion. For example, Nussbaum states that music can suggest both object motion and observer motion' (p. 66). Perhaps this is a slide. But I would point out once again that any *suggestion* of musical movement will depend on, indeed, be held hostage to, maintaining the *illusion* of motion in musical space.

The greatest bar to understanding, however, seems to be what I see as Budd's systematic confusion of virtual objects heard in music with sound sources. 'But insofar as sounds can be heard as the sounds of the movement of an object only through hearing the sounds as coming from different directions (as when I might hear you walking overhead), and given that in musical understanding the spatial positions from which the instrumental sounds are coming are bracketed off, such movements cannot be heard in music' (p. 67). This begs entirely the question of pitch, and not location in physical space, as an 'indispensable attribute' (see *MR*, pp. 31–32) of musical space. The crucial idea is that music subverts the evolutionary proper function of audition, which is the location of sound sources in physical space, and substitutes for these sound sources virtual objects heard in musical space. That is why Bregman claims that music deals in 'chimeras'. Location of musical sound in physical space is irrelevant to the organization of musical space, where pitches take on the role of locations. And unsurprisingly, since he thinks (or seems to think) of musical objects as sound sources, Budd rejects the idea of objects heard in music.

VI. HAPTIC EXPLORATION IN MUSICAL SPACE

Budd says: 'in fact in listening to music I never imagine auditorily-cum-haptically exploring (with hands, feet, tongue, ...?) surfaces, areas, and volumes occupied by media of different densities, as I move in a watery-like environment or as items in that environment move in relation to me. Neither do any of the musical listeners

¹³ P. F. Strawson, *Individuals: An Essay in Descriptive Metaphysics* (New York: Anchor, 1963), 211–14, emphasis in the original.

I have consulted' (p. 70). First, this is inconclusive. Budd may not imagine this, but I do, and so have other sensitive listeners.¹⁴ But second, and more important, Budd seems not to have taken seriously my monition that 'in order to coordinate the "actions" in musical virtual space mandated by the principle of psychophysical complementarity, one might well need capabilities that extend far beyond human physical limitations, the limitations of a middle-sized creature with a semi-rigid three-dimensional body with four extremities and twenty fingers and toes' (*MR*, p. 62).

Budd thinks that the 'perceptual illusion of a haptic-style experience of the exploration of surfaces, areas, and volumes occupied by media of differing densities [would] be likely to distract us from attention to the sounds, especially in musical polyphony' (p. 72). Here he seems to ignore entirely my discussion of the 'musical touch effect', the intensely emotional effect of a well-modulated musical sound on our eardrums, something of which the listener is always acutely aware 'whatever particular emotionally expressive contours and structural properties the musical work turns out to possess' (*MR*, p. 211). 'If our hearing of the sounds (as transformed into musical understanding),' Budd asks, 'is supposed to cause a perceptual illusion of haptic-style experience of the exploration of surfaces, areas, and volumes occupied by media of differing densities, wouldn't the illusion be likely to distract us from attention to the sounds, especially in musical polyphony [...]?' (p. 72) Once again, I respond that it would not, because of the musical touch effect. Moreover, the advantage of the hearing-in theory, a theory not my own but extrapolated by Robinson from Richard Wollheim's seeing-in theory for pictorial art,¹⁵ is supposed to be that it *requires* simultaneous awareness of both the pictorial or musical surface and whatever is seen or heard in these surfaces. So I'm afraid I just don't see the pressing problem here. I also don't see why the cyclical nature of musical space necessarily militates against haptic-style movement in egocentric behavioural space (p. 72n32). The egocentric behavioural spaces of Evans and Peacocke are, to be sure, three-dimensional and non-cyclical, and they accord with the physical limitations of the human organism. But musical space need not be so constrained and need not accord with the physical limitations of the human organism if that is what musical affordances (*MR*, chap. 2) demand.

¹⁴ On this score, I recommend consulting Richard Taruskin, 'Afterword: What Else?', in *Representation in Western Music*, ed. Joshua S. Walden (Cambridge: Cambridge University Press, 2013), 287–309, and Jenefer Robinson, 'On Being Moved by Architecture', *Journal of Aesthetics and Art Criticism* 70 (2012): 337–53.

¹⁵ Jenefer Robinson, 'Music as a Representational Art', in *What Is Music?: An Introduction to the Philosophy of Music*, ed. Philip Alperson (University Park: Pennsylvania State University Press, 1992), 165–92.

The (I trust friendly) Kendall Walton-style amendment Budd offers, that the ‘listener imagines *of* his (passive) experience of hearing sounds that it is an (active) haptic-style experience’ (p. 73), is something with which I could be comfortable, but for one nagging issue: in my estimation, no perceptual experience is passive. The eyes of a seer make saccades, the head of a listener (in physical space) rotates and changes vertical angle so as to exploit the asynchronous onset of sound waves, the tongue of a taster moves around so as to expose different taste- and texture-sensitive areas, the nostrils of a smeller dilate in coordination with sniffs, and last, but not least, the touch-sensitive surfaces of a feeler are put into systematic exploratory motions. All this is to say that perception is information extraction, a highly active process, and that passive perception is a classic empiricist’s fable. (Consider, for one thing, the Latin etymology of ‘perception.’) In musical perception, as Budd and I agree, the physical location function of audition is indeed ‘bracketed’. But why should this render musical perception passive? In the case of music, the listener’s task is the extraction of information from the musical surface. Of all the sense modalities other than audition, haptic exploration seems closest to this active process, not least because haptic exploration is the human sense modality for which the phenomenology of information extraction is serial, direct (not indirect, as with the detection of sound sources or light-reflecting objects in physical space), and reliant on cycles of repeated exploratory motions.

VII. ANIMISM IN MUSICAL SPACE

Contrary to Budd’s claim (p. 73), I do not say that *musical space* is animistic, but that ‘the musical virtual object presents itself as an animate object that is to be understood empathetically via simulation: like the world of the poet, the acousmatic realm of the composer is an animistic realm’ (*MR*, p. 64).¹⁶ Budd may have ‘failed to find in [my] text a convincing argument for this view’ (p. 73), but, to my mind, it follows directly from the assumption, which I accept from Roger Scruton, that musical significance is gestural.¹⁷ Only intentional, animate beings gesture. My book is intended, in part, to make naturalistically acceptable sense of this assumption. It is, of course, an assumption Budd is free to reject.

¹⁶ For discussion of the inveterate human proclivity to animate the inanimate and anthropomorphize the non-human and of its implications for art and design, I recommend Stewart E. Guthrie, *Faces in the Clouds* (Oxford: Oxford University Press, 1993).

¹⁷ ‘The organization of music is perceived not merely as movement, but as gesture. The activity which animates [that is, which we hear in] the musical surface is that which animates you and me – although transferred to another and inaccessible realm, the realm of pure sound, where only incorporeal creatures live and breathe.’ Roger Scruton, *The Aesthetics of Music* (Oxford: Oxford University Press, 1997), 333; quoted in *MR*, p. 257. I tend to agree, but how exactly are we to understand the ontology of these living and breathing incorporeal creatures?

Budd also thinks that my theory is inconsistent because animate *individuals* and scenario content are not consistent. I believe I have already answered this objection in my discussion of Peacocke, Strawson, feature-placing language, and feature domains above. There I insisted (following Strawson and Cussins) that perspective independence was not all or nothing, allowing that some mode of object tracking was possible in a feature domain, a mode of identification that still falls short of anything like full-blown identification of basic particulars. If a feature-placing language indicates (but does not successfully *refer* to or *denote*) patterns of features in a feature domain, then 'Cat!' and 'More cat!' latch onto animate cat-features, albeit 'same cat again' and 'another cat' cannot be distinguished. 'Cat movement here!' and 'Cat movement there!' in an egocentric space seem to me entirely legitimate expressions of feature-placing language. Any apparent inconsistency can thereby be resolved.

Budd is certainly correct when he asserts, 'to feel as if (or to imagine) one is moving is not thereby to undergo the experience as of (or to imagine) moving oneself'. But it does not follow that imagining oneself moving has 'nothing to do with action plans' (p. 74n36). In fact, this is false. Both sorts of observer movement involve action plans, just plans of different sorts. One of Cussins's memorable examples will serve (see *MR*, p. 222). Imagine riding a motorcycle. This is unquestionably moving, not moving oneself, yet it yields a rich variety of affordances and action plans: throttle-to-be-opened, handlebars-to-be-turned, brakes-to-be-gripped, rush-of-air-to-be-resisted, and, perhaps above all, balance-to-be-maintained. It is certainly true that not all modes of conveyance demand such intensely focused bodily acts and sets. Driving an automobile demands less, and riding as an automobile passenger demands less than that. Still, there is an automobile-passenger action plan that involves certain bodily bracing against the inertial effects of accelerating, decelerating, and turning, head and eye sets and movements that minimize nausea, and, oftentimes, futile foot-pressings for braking. Just about any mode of conveyance will involve some bodily sets: think of passenger-jet takeoff and bracing against inertial effects. Consider how you would communicate these various modes of conveyance in a game of charades (see *MR*, pp. 230–31). Riding a motorcycle would be comparatively easy.

Budd complains: 'there will be either a very considerable indeterminateness in the actions one imagines oneself (or another thing) performing or an unwarranted determinacy that will vary from listener to listener' (p. 75). I favour the second option, while denying that a *certain degree* of determinacy for the individual listener is unwarranted, and asserting that any variation from listener to listener will remain subject to constraints. Budd acknowledges (p. 75n37) my remark that

'Any musical representation of virtual objects will tend to be highly [...] "polysemous", or capable of supporting a range of different interpretations and of representing a multiplicity of alternative virtual objects' (MR, p. 24n4). But the musical representation will not generally be as polysemous as are the Rorschach blots that motivated the note Budd cites, where I recognize degrees of interpretive ambiguity concerning images seen in relatively stylized or abstract visual representations. With Rorschach blots there are no wrong or unacceptable interpretations and just about anything goes, since their purpose is to isolate what the viewer brings to these images. Budd proceeds to charge that the polysemous nature of the musical representation 'is not integrated into [my] theory of musical movement as haptic-style explorations in a virtual feature domain consisting entirely of scenarios'.

I disagree. Recall my discussion of the fourth movement of Schumann's *Rhenish Symphony* (MR, p. 231). What is it that we hear in this music? Must it be a cathedral, much less the great cathedral at Cologne, which is what Schumann intended us to hear in the music? Or is it a majestic mountain? Or could it be a grand metaphysical hierarchical structure like Neoplatonism's Great Chain of Being, an idea not exactly alien to the structure of a Gothic cathedral? Really, any of these things could be heard in it. But this music could not, I submit, represent the great American plains in the stillness of early morning (think of Copland's classic ballet style), or a river flowing from source to mouth (Smetana's *The Moldau*), or a conversation (the second movement of Beethoven's Piano Concerto No. 4). Since a feature domain contains no qualified particulars, a listener is free to bind whatever gestural, charade-like features she hears in any intuitively compelling way. Moreover, I remain committed to the idea that the resulting 'objects' will be animate: I take my bodily charade analogy very seriously, for all musical 'objects' are presented by way of musical gesture that we as listeners simulate.

Budd is partly correct when he claims: 'in Nussbaum's virtual musical space my only awareness of the environment is that which is given to me by the actions I am supposed to be performing within it: I do not have a prior conception of the environment, updated from moment to moment as I carry out my action plan' (p. 75). This will not be true when one is already very familiar with the work being performed, as is so often the case, and first hearings of unknown works place the listener at a disadvantage, albeit one full of challenge and anticipation. Even at first hearing of an unfamiliar work in a familiar style, I have a prior conception that enables me to project what is likely to come next as the musical plan unfolds. This is even more marked in the case of an unfamiliar piece by a composer I know well. No doubt, at the very beginning of an unknown piece in an unfamiliar style the listener can be seriously disoriented. In general, good

musical logic on the part of the composer is a definite aid, as is sensitive performance. A conductor once told me that it was difficult or impossible to anticipate what an unmusical person would do. It is like trying to dance with a clumsy and inept partner.

Budd ends his essay by asking two good questions. First, since all musical experience in my view involves running action plans off-line, what is it that enables the listener to differentiate between first- and third-person (or subject and object) motion? 'It would, of course,' Budd says, 'be no answer to this question to insist that the nature of the environment at any time is built into the action plan, the listener exploring this changing or static environment either by moving within it or by remaining at rest' (p. 76). I reply: not at any time, but sometimes. Consider one of the examples in my book (*MR*, p. 49), the violin and flute solos in Rimsky-Korsakov's *Russian Easter Overture*, which give the impression (subject to the illusion of motion in musical space) of bird flight, by contrast with their relatively static accompaniments. Although flight as 'third-person' motion is 'built into the action plan,' the listener also can switch perspective and assume the first-person point of view of a flying bird. This is encouraged, I think, when the violin solo returns later in the work without any accompaniment at all. In the fourth movement of Schumann's *Rhenish Symphony*, all motion is, to be sure, first-person observer motion. Nevertheless, we can also take the complementary standpoint of the motionless massive object that is the animated 'object of observation,' which majestically holds itself motionless. Holding motionless is itself an action, if not a motion, and thus mandated by the action plan of the work.

Second, Budd asks how my view would fare when applied to a work like J. S. Bach's *The Art of Fugue*. How would the nature of the haptic exploration it offers be related to the musical value of the work? What motivates these questions is the relative inapplicability of the notion of extramusical content to such a work. Music of this style derives most of what meaning it has from extramusical form, its 'logic,' the semantic field relations it models, and very little from extramusical content. But, as I explained earlier, for me, if not for Budd, the extraction of extramusical form is also haptic and bodily, involving the experience of limning the musical forms traced by sound in musical space, feeling the gravitational dynamics of the music, the attraction of musical sounds within fields,¹⁸ the repulsion of musical sounds between them, and the multiple functions of

¹⁸ Budd asks: 'Precisely which feature possessed by Western tonal art music since 1650, but perhaps lacking in other music, endows it with the representational character Nussbaum attributes to it? It is unclear to me what Nussbaum's answer would be' (p. 60n1). I reply: at least (but not necessarily only) the sophisticated harmonic organization and key relationships characteristic of this style of music.

musical sounds within and between fields that enable music to model logical inference. And most listeners seem to accord the music of Bach consummate musical logic. Certainly, musicologists don't discuss it in my terms, but practitioners of specific disciplines do not in general adopt the terminology of the various competing philosophies of their disciplines. How many physicists talk of deductive-nomological explanation, nomological necessity, closeby possible worlds, natural kinds, or rigid designators? How many music theorists invoke Gödel's incompleteness theorems? There is scarcely an interesting philosophy of anything that is not more controversial than the subject of which it is the philosophy. Still, the problem for the philosophy of music is to try to understand how music, which is non-conceptual, can be said to possess any logic at all.

Finally, Budd worries that in song, opera, and film, if not in ballet,¹⁹ the explicit representational content provided by the words and scene would in general have nothing to do with the supposed representational content of the music – the words of a song might represent no kind of movement, for example – and in most cases would be likely to clash with it' (p. 76). I don't deny that such clashes 'might' happen, but I deny that in 'most cases' they are likely to happen. Usually, it seems to me, the content of music is pretty carefully tailored to the words and scenes it is intended to accompany. Think of Schubert's songs 'Die Forelle', 'Gretchen am Spinnrade', and 'Der Erlkönig'. Think of the heaving contrabassoon figures that accompany Leonore's and Rocco's heavy lifting in their dungeon-scene duet from Beethoven's *Fidelio*, the plaintive melodic contours of 'A Furtive Tear' from Donizetti's *The Elixir of Love*, or the musical bravura of the champagne aria from Mozart's *Don Giovanni*. Think of the shower scene in Hitchcock's *Psycho*, the menacing cello and bass ostinato as a grimly threatening Clint Eastwood slowly rides out of town after the climactic shootout in *Unforgiven*, or the tortuous bass clarinet and bassoon passages filled with tritones that accompany the perambulations of the mean-spirited pre-reclamation Ebenezer Scrooge in the great British 1951 film version of *A Christmas Carol*. This list could be indefinitely expanded.

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¹⁹ Notice that ballet is limited to the possible motions of physical bodies in physical space.

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