Song Means:
Analysing and Interpreting
Recorded Popular Song

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Chapter 1
Methodology

Introduction

Who are you? How do you define yourself, your identity? The chances are that who you believe yourself to be is partly founded on the music you use, what you listen to, what values it has for you, what meanings you find in it. You may not at present be conscious of this (few are), you may not wish to be. If that's the case, then don't waste your time by reading any further …

So, unless you're just idly perusing, that's clearly not the case. What meanings can experiencing a song have, and how does it create those meanings? That, broadly speaking, is what this book is about. Note, though, that it's not about *what* songs 'actually' seem to mean, it's about *how* they mean, and *the means* by which they mean (which is my excuse for the strange title). And, although I would hope you find in it much that is accessible, if you find reading about musical detail difficult, then you may need to be prepared to put it down from time to time. Listening to songs is as easy as driving a car – easier, probably. Understanding how they work is as hard as being a mechanic (or so I believe – it's as much as I can do to understand how and why to check the oil in mine). The reason I focus on the 'how' is that I believe that, as a listener, you participate fundamentally in the meanings that songs have. As a listener, you're not fed these meanings on a plate, and if someone (particularly someone in a position of power, a music journalist, a musician, a teacher or parent) insists a song's meaning is such and such, you have every right to disagree (yes, even with the musicians who wrote and sang the song). Indeed, much of the book is effectively a series of arguments and demonstrations as to the value of doing this. Your disagreement will be most effective, of course, and most convincing to yourself, if you understand how it is that a song means for you, and it is particularly in order to develop those tools of understanding that this book was written. The rest of this chapter concerns its academic background and rationale. It's not essential reading – you may want to skip straight to Chapter 2 – but the context has some importance in developing more fully the necessity of the task.

Analysis

In the past 25 years, perhaps since the launch of the journal that bears the discipline's name, music analysis has taken its place at the centre of the body of techniques with which scholars of music can address their subject. And, although

it may have been assailed by post-structuralists, by post-modernists, and by cultural theorists within the field, this has only served to refine the methods that music analysts employ to make them more suitable to the object at hand, or to the analytical imperative that begins the process of analysis itself. The academic study of 'popular music' is a newer phenomenon, beginning from such disciplines as sociology, literary and cultural studies, and has only far more recently been addressed within the academic field of music. Bringing these two together, 'music analysis' and 'popular music', is an undertaking that has been addressed a number of times[1] but not yet, to my mind, at sufficient length and in sufficient detail. That observation was a secondary motivation for this study. For O'Donnell, the time is not yet ripe for a thorough theoretical treatise even on the workings of rock music alone, a subset of the repertory I address here: 'we need many more close analytical readings of specific songs … before attempting to generalize the musical properties of fifty years of rock'.[2] Because I have some sympathy with this view, I offer in this book a methodology, rather than a theory proper.[3] For all its minor uncertainties, and despite its age, Middleton's *Studying Popular Music*[4] remains the best theoretical overview of popular music we have. The theoretical pose of parts of the opening chapters (in which I have avoided the rigour of theory per se) is thus intended chiefly to support the hermeneutic[5] superstructure of the remainder, rather than to be self-sufficient. More on this relationship anon.

I begin with the two understandings of the book's title to which I have already alluded. The first is to try to lay bare the means by which popular songs are constructed. I do this from the viewpoint of the analyst, the listener with a deal of prior knowledge, but I always endeavour to bear in mind the more numerically common listener, the everyday listener, whose ears will frequently be as acute as mine, but who will not have the technical vocabulary, or will not perhaps be aware of the wealth of associations, to which I draw attention. The second, which I believe is no less pertinent, is to assert that popular songs create meanings in listeners (or perhaps the listeners create the meanings through listening to the songs, the difference being a matter of theoretical, but not practical, interest).

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[1]   For example, John Covach, 'We won't get fooled again: rock music and musical analysis' in David Schwarz et al (eds.), *Keeping Score: Music, Disciplinarity, Culture* (Charlottesville VA, 1997), pp. 75–89 and Robert Walser, 'Popular music analysis: ten apothegms and four instances' in Allan F. Moore (ed.), *Analyzing Popular Music* (Cambridge, 2003), pp. 16–38.

[2]   Shaugn O'Donnell, Review of Stephenson, *What to listen for in rock*, *Music Theory Spectrum* 28/1 (2006), p. 139.

[3]   Alternatively, in Heideggerian terms, a ready-to-hand rather than a present-at-hand.

[4]   Richard Middleton, *Studying Popular Music* (Buckingham, 1990).

[5]   I intend this term simply as a less confusing alternative to 'interpretive', since to 'interpret' music is often felt to be what a performer does with the music presented to them. This latter meaning plays no part in what follows – I use 'hermeneutic' as synonymous with 'interpretive' rather than making any great reference to the German philosophical tradition.

Thus, I endeavour to explain the means by which songs can mean. I do this as an analyst, not a composer, nor an ethnographer, for the sounds to which we listen are the minimum of what we have in common as listeners. The book lays out the methodology which I have used, at first implicitly and subsequently explicitly, in all the interpretive work I have undertaken in the field since the early 1990s, and particularly in the interpretations I have presented in the broadcast media. Their level of reception suggests to me that what follows is of far from only academic interest and applicability, even if that is where it begins. Whereas many writers on popular music are interested in why a host of the activities connected to music are meaningful, I am concerned here with only one of those activities, the making sense of specific listening experiences.

I address popular song rather than popular music. The defining feature of popular song lies in the interaction of everyday words and music. Commentators, myself included, tend to address one at the expense of the other (often because of what they perceive as their level of expertise – does one have to be an expert to address musical details?), but it is how they interact that produces significance in the experience of song, in most cases. This also explains why I largely restrict my study to Anglophone songs. An analogy may be fruitful. The rush to interpretation that so many make, without grounding such an interpretation in the detail of the song that gives rise to it, seems to me akin to talking about the enjoyment of pancakes by focusing only on the maple syrup (which requires the pancake to carry it), and by declaring either that the size and type of egg that goes into the batter (hen, duck, goose?) is irrelevant, or that breaking the egg should be done mechanically, because it is too hard for human hands to get right every time.

Writing in 2010, the 'analysis of music' no longer requires justification. But, the 'analysis of music' is often taken (by both sympathizers and detractors) to be synonymous with the 'structural analysis of music', that is with the ascertaining of the musical relationships that obtain between different parts of a musical object (usually the score, occasionally the performance) or between parts of the object and the whole. It is a self-sufficient enterprise and it succeeds to the extent that it demonstrates those relationships. Although that may be all very well for the music of the concert tradition (I don't believe it is, but that is a separate argument), it is not adequate to the discussion of popular song: indeed, I find a more realistic (and acceptable) definition of analysis to concern the issuing of an invitation to hear a particular sample of music in a particular way. Because popular song neither exhibits stylistic complexity (on the basis of which its success can be evaluated) nor necessarily results from carefully considered, artistic creation, its analysis is often thought to require justification, perhaps along the lines I am suggesting. However, popular songs are, frequently, put together with a minimum of overt concern for aesthetics (although aesthetics are still there), and always with an ear to a particular listening public. They will only attract that public if they can resonate with potential listeners, if they can mean something to them. To analyse songs without addressing the issue of meaning is, quite simply, to evade the issue. So, in principle at least, analysis can be directed towards two different types of

question: first, asking of a musical experience questions like what, how and why; and, second, asking questions of value, effectively analysing whether a particular aesthetic is achieved. Determining the aesthetic of a given item of music needs to be based on explicit criteria because we can imagine mutually exclusive criteria of value: relational richness; motivic logic; surface diversity; economy of material; breadth of reference; structural coherence; emotional impact; commercial potential (etc.). Each of these criteria may be valid, but only for particular styles. (One of the most pressing of contemporary tasks is the explication of criteria for the various musics we encounter, for we have still not escaped the academic hegemony of the European canon.)

Michael Chanan extended Roland Barthes'[6] emphasis on the importance of *musica practica*, of acknowledging that the way listeners listen is greatly determined by whatever bodily knowledge they have of producing music. This has two important consequences. First, as we now know from the discovery of the operation of motor neurons in the brain,[7] trumpeters' neurological response to trumpet music differs from her or his neurological response to piano music, a response she or he cannot control, by virtue of the fact that she or he has intimate physiological knowledge of what it takes to produce music from a trumpet. This is because the same body of neurons fires whether the action (e.g. playing the trumpet) is being undertaken, or is being perceived and hence simulated. But, second, trumpet music will forever engage him or her more completely than it will a non-trumpeter, no matter how competent at listening the latter may be, for the same reason. In terms of focusing on the details of melodic and harmonic structures, particularly if we refuse the artificial aid of visual notation, experience of producing the sounds can be crucial, and this is my second point. Across a variety of fields, we find testament to differences of mental operation in regard to these competences. From music education, Keith Swanwick[8] follows Michael Polanyi in distinguishing 'explicit' from simply 'tacit' knowledge. From music theory, Nicholas Cook[9] distinguishes 'musicological' from simply 'musical' listening. From psychology, Howard Gardner[10] distinguishes 'musical' from other forms of 'intelligence'. From pedagogy theory, David Elliott[11] distinguishes 'problem-solving' from simply 'problem-reducing' competences for music. Theodor Adorno,[12] of course, distinguished the 'expert' from the simply 'emotional'

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[6] Michael Chanan, *Musica practica* (London, 1994) and Roland Barthes, 'Musica practica' in *Image–Music–Text* (London, 1977).

[7] Jerome Feldman, *From molecule to metaphor: a neural theory of language* (Cambridge MA, 2008).

[8] Keith Swanwick, *Music, Mind and Education* (London, 1988).

[9] Nicholas Cook, *Music, imagination, and culture* (Oxford, 1990).

[10] Howard Gardner, *Frames of Mind* (Cambridge MA, 1985).

[11] David Elliott, *Music Matters* (Oxford, 1995).

[12] Theodor Adorno, *Introduction to the Sociology of Music* (New York NY, 1976).

listener, while Mark deBellis[13] combines analytic philosophy and cognitive theory to distinguish 'conceptual' from simply 'non-conceptual' listening. Despite disparities of detail, these writers are all acknowledging the same basic, structural, difference. In order to discuss how a musical experience was, we need to communicate its changing effect on us, and we therefore need to be able to identify parts of pieces precisely in order to do this. 'Popular', or 'non-conceptual' or 'problem-reducing' competences tend to have access to no such precise language.[14] In the method outlined here, then, I am not necessarily modelling the sense any particularly listener may actually make, I am modelling the sense particular listeners will have the potential to make, related to their competence in the styles that articulate the structures they are hearing. This is necessary in order to counter some of the assumptions that stand for scholarship in some circles. To take just one example somewhat at random, Sean Cubitt has argued that: 'Melody must disrupt the perfection of the tonic just as any good story has to begin with a departure, a mystery or some similar intervention … like narrative, in its departure from the norm, melody must contain a promise to return to the narrative closure of restored order …'.[15] Such an unnuanced view may have been adequate in 1984, when we had undertaken little research into how popular melody actually operates but, as Chapter 4 will show, such globalizing assumptions (this is how melody must work) are no longer tenable. It will be clear by now that my concern is with music as it sounds, rather than in any representation of it: as Shepherd notes: 'little work has been undertaken on issues of textuality in relation to the sounds of popular music'.[16] It is in that sphere that this book operates.

To analyse a popular song is, of its very nature, to offer an interpretation of it, to determine what range of meaning it has, to make sense of it. Such determination, such making, is an after-the-event operation. Think what happens when we encounter somebody we do not know. Frequently, after that encounter, we will find ourselves reflecting on it, thinking of alternative ways it could have gone, coming to a decision (however implicit) as to how to act should we encounter the person again. The analogy with what happens in listening to a song is, I think, a good one. While listening, we are simply experiencing the song. Afterwards, however, if we are so inclined, reflection on that experience can produce for us an understanding of ourselves within that experience, and an orientation to adopt in listening to the song again. Too often in the literature, whether academic, journalistic, fan posting, or whatever, interpretations are made without adequate anchorage in the details

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[13]   Mark deBellis, *Music and Conceptualization* (Cambridge, 1995).

[14]   Zbikowski notes that both 'implicit' and 'explicit' knowledge are 'accessible to consciousness'. See Lawrence Zbikowski, 'Modelling the groove: conceptual structure and popular music', *Journal of the Royal Musical Association* 129/2 (2004), p. 276.

[15]   Sean Cubitt, '"Maybelline": meaning and the listening subject', *Popular Music* 4 (1984), p. 209.

[16]   John Shepherd, 'Text', in Bruce Horner and Thomas Swiss (eds.), *Key terms in popular music and culture* (Oxford, 1999), p. 171.

of an actual aural experience of a song. It is as if our determination to approach someone in a particular way on a second meeting is not actually based on what we discovered about them during the first. Journalistic and fan writing can often proceed as if the meanings of songs were determinate, as if there were 'right' and 'wrong' ways to interpret a song (whereby interpreting it 'correctly', means being 'in the know', a means by which one acquires sub-cultural capital). In so doing, this reinvents beliefs about the meanings of concert music that academic thinking has generally cast aside. There is a strong body of opinion that acknowledges the flexibility with which listeners actually approach songs and attempt to discover meaning within them. Richard Middleton writes in terms of some music being 'under-coded',[17] by which he points to the necessity of listeners' experiences being used to complete a song's meaning. I have elsewhere made use of the concept of songs 'affording' particular meanings,[18] by which I mean that although we can say what they are not about, we can only specify a range of possibilities as to what they might be thought to be about, and I return to this point later. Specification of that range requires secure purchase on the sounds, and their connotations, of which songs actually consist. Then again, for some listeners, it seems that a song means whatever they want it to mean. Again, this seems unsatisfactory, for it suggests a peculiarly hermetic, immature existence reminiscent of Humpty Dumpty.[19] To quote Mark Johnson, in a study to which I shall also return, 'we do not simply construct reality according to our subjective desires and whims … [but neither are we] simple mirrors of a nature that determines our concepts in one and only one way … [T]he environment is structured in ways that limit the possibilities for our categorizations of it. But the structure of the environment by no means strictly determines the structure of our experience … .'[20] An emphasis on 'environment' will become clear in later chapters. Astute readers will have already noticed an implicit limitation I am placing on the construction of meaning. Where is that realm of concerns we might label 'socio-cultural' meanings? Bethany Klein asserts the problem clearly: 'A model of meaning that focuses only on the lyrics and instrumentation refuses to engage with another very real sense of meaning in popular music: meaning as personal and emotional significance … Groups make use of popular music to indicate shared identifications, and to celebrate and honor shared events. Audiences … create commonalities tied to music. Fans of sports teams use songs to distinguish themselves from fans of other teams …' (etc., etc.).[21] While the latter chapters do address emotional significance, from a very

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[17]   Middleton, *Studying*, p. 173.

[18]   Allan F. Moore, *Rock: the Primary Text* (2nd edn, Aldershot, 2001), pp. 6–7, 25.

[19]   I refer, of course, to the words Lewis Carroll puts into his mouth.

[20]   Mark Johnson, *The body in the mind: the bodily basis of meaning, imagination, and reason*, (Chicago IL, 1987), p. 207.

[21]   Bethany Klein, *As heard on TV: popular music in advertising* (Farnham, 2009), pp. 110–13. My focus is far broader than just 'instrumentation', but I think what I offer would still come under Klein's criticism.

particular viewpoint, I do not deal with the rest. I would not wish to assert that the realm of meaning in which I am interested is necessarily more important than these others, but I do not treat them here because they are not nuanced, because the associations made cannot be predicted in advance and, indeed, because those meanings lose their grip once a listener begins to take interest in the activity of listening. In any case, these spheres are widely addressed – as I have suggested above, it is the hermeneutic approach that lags behind and my addressing of it here should be taken as a serious attempt to redress the balance.

Chapter 8
Reference

The Verbal Imperative

I have argued throughout that songs mean. In many spheres of understanding the meaning of 'mean' is to point elsewhere – we may say that seeing smoke means that there's a fire, that failing an exam means insufficient work was done, that the use of a particular word means that I had some idea in mind when I chose to use that word. A meaning that is not open to communication, that is not available to be made available to others, seems incomplete. Sometimes, we don't know 'what we mean' until we try to express it. I want to argue here that if we find some music meaningful, if we find meaning in a song, that finding is incomplete until we have passed it on.

I start by taking entirely out of context a comment of Albin Zak's in grappling with this very issue. In his *Poetics of rock*, he refers to the distorted acoustic guitar sound on the Beatles' 'I'm only sleeping', a typical Beatles sound. He says of it 'that this is not your average guitar sound … and [I] take my delight from its unusual sonic texture … By its raw, harsh tone it has gotten my attention, and even if I cannot put it into words, I know that it is saying *something*.'[1] In one very important sense, Zak is absolutely right. It is not possible simply to translate into words the meaning of music, and this observation is behind the urge so many feel that music is not to be tampered with, that the process of trying to put things into words is a waste of time, and might even damage the experience. However, avoiding doing so is equally problematic. Zak's satisfaction with privileging the identification of that sound's meaningfulness over the reason for its meaningfulness (and despite the fact that he does actually offer a powerful interpretation) reminds me of what positivist musicology has long held: the recognition that something significant is happening (in this case, the guitar tone, which can be identified analytically in terms of its departure from a norm), but whose significance doesn't need to be articulated (verbalized) in anything other than internal, formally relational, terms.[2] In this chapter, I want to suggest that the process of discovering that something matters, and then identifying what it is, is insufficient. I believe we must endeavour to identify why it matters, for communicating our understanding,

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[1] Zak, *Poetics of rock*, pp. 191–2.

[2] I have elsewhere critiqued this comment of Zak's (Moore, 'The act you've known'). My harking back to it is not intended personally; I simply use the quote because it is such a clear example of a tendency to which so many of us (myself included) have been prone.

rather than allowing ourselves to inhabit a hermetic aestheticized space, carries a morally imperative charge.

Therefore, I insist, the search for significance should issue in its expression. An initial demonstration of what I mean here begins with the Beach Boys' hit 'Heroes and villains', of 1967, particularly the short segment that begins at 45″. Many years later, Brian Wilson re-recorded this song as part of the *Smile* project, an endeavour to bring before public ears the album he had intended to complete as a response to the Beatles' *Sgt. Pepper*, but was prevented by his breakdown. A comparison of the two yields interesting results. To my ears at least, the *Smile* version is the same song, as far as pacing, harmony, groove, melody, and even arrangement are concerned. It is not the same track, though. For one thing, it seems Wilson takes lead vocal on the latter version. I want to focus, though, on something rather more subtle. In the latter version, the snare drum is altogether more prominent than in the former; it has been brought forward as a feature of the production. As a result, it seems to me to signal *something*, even if that something may be hard to verbalize. What might that something be? Remember, my concern is to articulate a reason for this difference. If we move forward to the subsequent track, 'Roll Plymouth Rock', we discover an unusual emphasis on drums (unusual with reference to the sort of style with which Brian Wilson normally works). This is not an emphasis on the snare drum particularly, but it is an emphasis on drums (as a class of instrument) nonetheless. 'Roll Plymouth Rock' itself contains an internal reference to 'Heroes and villains' in that it offers a quotation of it. Now I move forward to track 13, 'On a holiday'. This track also has an unusually prominent kit and, from 32″, it re-runs the lyric hook to 'Roll Plymouth Rock'. Now of course, we do not know what *Smile* would have sounded like had it seen the light of day in 1967. We might assume from Wilson's commitment to releasing it even at such a late date that it would have sounded rather like it now does (accepting the intervening development of technological possibility, and the greater maturity of our own ears). And I propose that, if it had sounded like this, it would have had a more profound effect on the history of popular music than did *Sgt. Pepper*, for it offers a far more thoroughgoing means of overcoming the limitations of the 3′ single (perhaps the most important ingredient in the ensuing progressive rock) than the simple notion of the 'concept album', in its constant intra-textual references. All I have done here is to concentrate on the most obvious, as 'Heroes and villains' becomes incorporated within 'Roll Plymouth Rock', which in turn becomes incorporated in 'On a holiday'. It is the unusually prominent drums that call attention to these embedded references, and which might convince us of some intentionality behind them (although I am not convinced that this is material to my interpretation). In this particular example, then, I can find a satisfactory interpretation of this *something* signalled, namely that the drums have a structural function, whatever else they may be felt to do. Of course, the significance *Smile* would have had in 1967 is entirely different to the one it has on its authorized release now, much of which seems to relate to a renewed evaluation of the

importance of Wilson's body of work, notwithstanding that various versions and part-versions have circulated for decades.

Semiotics

Perhaps the dominant theoretical position underpinning hermeneutic work in popular music is that of psychoanalysis. It is not possible to summarize briefly all the assumptions this brings to an interpretation, but they are assumptions that develop most particularly not from Freud himself, but by some of those who claim indebtedness to him: Lacan particularly, Kristeva as a dominant feminist scholar, and more recently Žižek. While it is surely possible to pick and choose aspects of these writers' various positions, working in this way would certainly weaken one's theoretical foundation. Bradley[3] is just one writer who uses the psychoanalytic term *jouissance* to describe (at least, I think that is his intention) that very 'beyond verbalization' aspect of the musical experience I am concerned to try to get closer to, but how thoroughly such terminology has percolated through his basic perspective is open to doubt. A more thoroughgoing approach can be found in chapter 5 of David Schwarz's *Listening subjects*.[4] I have previously offered a critique of this,[5] and propose to add nothing further here. Richard Middleton's recent study exemplifies a complete orientation to the work particularly of Žižek.[6] As is right and proper, understanding these writings necessitates understanding the theoretical principles on which they are based. I note these, because this is an important field of work. I do not pursue this line of thought at all partly due to my scepticism over Freud's contribution[7] but also because I find it low in real explanatory power of the musical experience.

Instead, I focus back on music,[8] and note that music refers in three fundamentally different ways: within itself; to itself; outside itself. Semiotics, a field of study I

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[3]   Bradley, *Understanding rock'n'roll*.

[4]   David Schwarz, *Listening Subjects: Music, Psychoanalysis, Culture* (Durham NC, 1997).

[5]   Moore, 'The track'.

[6]   Middleton, *Voicing the popular*.

[7]   See, for instance, Ernest Gellner, *The psychoanalytic movement* (London, 1985) and Adolf Grünbaum, *The foundations of psychoanalysis: a philosophical critique* (Berkeley CA, 1985). While I enjoy Peter Medawar's possibly apocryphal comment on psychoanalysis as a 'massive intellectual confidence trick', I acknowledge that my suspicions cannot be said to based on extensive knowledge of the field.

[8]   My aim in this chapter is to focus on the ways that music *refers*, and I shall find semiotics to be of limited value. Before I approach this topic, it should be noted that my focus on *friction* in Chapter 6 could, strictly, be viewed as a semiotic method, since there I call attention to the *difference* between the norms about which a listener has developed assumptions, and what actually happens within a track. I would argue, however, that in

shall address in a moment, normally claims purview over all three of these ways but, in practice, it is only in the last that it is useful. Later in the chapter, I shall find that even here, it is less useful than is often made out. The first two of these ways are encompassed in Green's concept of the *inherent* meaning of music, while the latter conforms to her *delineated* meanings.[9] When music refers *within* itself, one part of a track refers to another part. For example, the opening of a second verse will always refer to the opening of the first verse; that is, it will enable/suggest/ require the calling-to-mind of its previous occurrence. Thus, all reference within music depends on repetition, or on some form of transformation. The beginning of a path to a climax (in the verse of Deep Purple's 'Child in time', let's say) refers forward to the achievement of that climax. We normally reserve the word repetition for the repeating of stretches of music (sections, melodic phrases, riffs, grooves, harmonic sequences) – lower levels of repetition, while inevitable, are usually trivial. Transformations are more debateable, since some measure of similarity must be retained (in 'Child in time', it's the repetition of the beat and maintenance of the texture, while the melody moves upward in terms of pitch, traversed by means of a unified gesture). Conventional music theory (which forms the basis for my explorations in Chapters 2–4) represents a far more powerful set of tools for this form of reference than anything in semiotics. When music refers *to* itself, it makes reference to a separate instance of music. This works in two very different kinds of way. The first we may crudely call the realm of *covers*. Thus, a cover will refer to the track being covered. The vocal identity of a particular singer will refer to other examples of that singer's work (whether or not a listener chooses to notice the recurrence). The timbre of a guitar will refer to other examples of that timbre – here, transformation is again important, for what might be found significant will be a subtle modification of that timbre (it might be less, or more, sophisticated; less, or more, proficiently handled). Music theory is again useful here, although this form of reference is far less often addressed than either of the other two. It is best considered in terms of *intertextuality*, addressed in Chapter 9.

The second kind of way is in relation to a lyric. The Beach Boys' original recording of 'Good vibrations' employs a striking double transformation. The track opens with a stepwise harmonic descent from E minor, and repeats this move, before shifting to the relative major for the chorus. The protagonist sings of being *in receipt* of 'good vibrations', over a harmonic pattern that moves upward, from G,[10] to A, to B, in readiness for the second verse. The vector is clear: gradual upward motion of harmonic roots coincides with activity in the relationship by his

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avoiding any assumption about the *inherent* nature of such a difference, in calling attention to the necessarily experiential nature of any recognition of difference, in its lack of fixity, such a method should not be thought of as semiotic at all.

[9]   Green, *Music on Deaf Ears*.

[10]   Some listeners hear the track as based in G, others as G♭. The actual pitch is between the two, and the difference is not material to my argument – I refer to G simply for ease of presentation.

partner, towards him. This link is merely associative, but once made, it becomes an operative force (but only within this single track). In the centre of the song, the texture slims remarkably, down to organ and shakers, a change that coincides with the protagonist's dawning realization of his culpability – he's 'gotta keep those … vibrations happening with her', that is, he has to become active in the relationship himself. Thereafter, the 'good vibrations' hook is sung over the same pattern, but now transposed in the reverse direction, from B, to A, to G. Now that 'he' has become active in the relationship a new, smoother, coda melody enters, is repeated transposed from G, to A, to B, and finally back to A, thereby finishing mid-way between the outer reaches of this pattern. The original G–A–B sequential motion is thus first reversed, and then combined with its reversal to provide a conclusion. This transformation thus enables a reading of the future history of the protagonist, himself identified through his lyric, as one in which he will enjoy a probably successful relationship, resultant from the 'emotional work' he has implicitly agreed to undertake.[11] This realm of meaning is semiotic in that the direction of the transposition (upward or downward) is arbitrary (I shall discuss the importance of this in a moment) – the directions could have been reversed. What matters is simply the *difference* between them. The *meaning* of the direction is anchored only in the lyric. For this sort of internal reference, semiotics has something to say but, I would stress, only in tandem with a theory of the persona.

For the third relation, when music refers *outside* itself, it acts as a sign of something that is not music, and it is here particularly that semiotics is worth considering. Answers to questions of signification, across all fields of human experience, are considered within the domain of the discipline, concerned as it is with the relationship between human signs and what they signify (and, one should say, to whom, but by no means all semioticians are interested in this addendum). In the discussion of music, semiotics becomes a way of discussing how certain features of the track point outside the track, to the external world, how they *represent* things outside music.[12] The relationship of some features may be so common as to become conventional – distorted sounds appearing ugly, for example, or high pure sounds appearing ethereal – and I shall return to this conventionality later. A (for me, the) key feature of semiotics as practised in the field of language (and, following that, of other fields of culture) is that of *arbitrariness*, the notion that the relationship between what semioticians, following Saussure, call the *signifier* and the *signified* is not causal. The *signifier* here is a particular linguistic concatenation of sounds ('dog', for example) and the *signified* is the concept that this concatenation calls to

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[11] I develop this reading in 'Interpretation: so what?', in Derek B. Scott (ed.), *Ashgate Research Companion to Popular Musicology* (Farnham, 2009).

[12] Although there are studies of the use of semiotics in the discussion of music, such as Raymond Monelle, *Linguistics and semiotics in music* (Chur, 1992) (and Monelle's rather ascetic perspective would certainly problematize my characterization), I am aware only of Giles Hooper whose work-in-progress looks at its operation across an extensive range of music.

mind (the mental image of a 'dog', in this case). Arbitrariness as a principle is built
into the system because, for a Francophone speaker, the *signifier* 'chien', which
is wholly different from 'dog', carries the same meaning. For some critics, this
emphasis on arbitrariness is not particularly satisfactory,[13] not least because it is so
far in the past (the branching of a language family into what became respectively
English and French, for instance), as to be literally useless, but also because
new meanings (what Sless calls 'stand-for relations') are created all the time. It
certainly seems unsatisfactory in the discussion of music, as will become apparent
throughout this chapter. Perhaps because of unease amongst musicologists with
this brand of semiotics, which develops from the work of the Swiss linguist
Ferdinand de Saussure, more attention has been given to that which developed
from the thinking of US philosopher Charles Sanders Peirce, and which was
subsequently developed by Umberto Eco and others. Peirce's scheme is complex
and unstable, although it has been solidified for the study of (some) music by
Naomi Cumming.[14] One dominant thought in Peirce's work is that rather than
the simple signified/signifier relation, there are three basic types of sign: icons,
which bear a relation of resemblance to what they signify; indices, which bear
a relation of experiential proximity (which might or might not be causal); and
symbols, which require the intervention of conceptualization and which, therefore,
are frequently arbitrary.[15] It is this train of thought that underlies much of the work
in musicology that uses a semiotic basis, most importantly for our purposes
that of Philip Tagg. Before I come to that, there is more to say on the issue of
the arbitrary.

   Semiotics (of one sort or another, and most often not rigorously theorized)
is regarded outside musicology almost unproblematically as the means to
investigate musical meaning. However, Christian Kennett[16] argues that this should
not be the case. Kennett's criticism takes as its starting-point the observation
that a particular meaning posited for a track by Philip Tagg was not one that was
picked up by Kennett's own students, in spite of the fact that Tagg's reading was
very well anchored in details of the track concerned. What are we to make of
this disparity? A normative reading of semiotics would assert that the meaning
of an artistic expression has become encoded within it, such that the role of a
culturally competent spectator, or listener, is to decode that meaning. This model
is strongly implied in an early essay of Tagg's, in which the music is described

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[13]   See David Sless, *In search of semiotics* (London, 1986).

[14]   Cumming, *The sonic self*.

[15]   This is a gross simplification of Peirce's complex thinking, but is the most useful
set of concepts for the discussion of how this repertory refers outside itself.

[16]   Kennett, 'Is anybody listening?', in Allan F. Moore (ed.), *Analyzing Popular Music*
(Cambridge, 2003). I use Kennett here partly because he has regarded my own work as
semiotic (ibid, pp. 199–200), a position I shall depart from below.

as a 'channel' situated between its 'emitter' and its 'receiver'.[17] Tagg analyses the theme to the TV series *Kojak* and finds, for example, 'the music was found to reinforce a basically monocentric view of the world and to emphasize affectively the fallacy that the negative experience of a hostile urban environment can be overcome solely by means of an individualist attitude of strength and go-it-alone heroism'.[18] And what of the listener who simply cannot hear these values in that conglomeration of sounds (despite the magisterial presentation of the evidence)? This is Kennett's concern. Elsewhere, commentators are more explicit about the use of such an information theory model. This encoding is partly the result of the intentions of the 'emitter', and partly an accretion of meanings from similar (or dissimilar) examples that form part of the listener's cultural competence. Kennett offers, instead, a model in which the meaning is not considered encoded at all, but is entirely created by listeners, on the basis of his or her own experience, and he offers a thought experiment to suggest some possibilities. This model certainly helps to suggest reasons why not all listeners extract the same meaning from a listening experience – their role is simply not to extract such a meaning but to impose one. With an information theory model, one can only note a listener's 'incompetence' if they 'fail' to pick up the 'correct' meaning and, of course, it is a political issue as to who takes the right to determine what that right meaning might be. So, Kennett's dissatisfaction is perhaps well-placed. However, if we take seriously his cure, then we can only address the individual listener. In other words, we become powerless in the face of music, a situation Tagg (rightly, to my mind) initially set out to address in developing the method he has employed and refined ever since this early essay. The problem, I believe, lies not in Tagg's aim, nor in Kennett's critique, but in the assumption of the initial arbitrariness in semiotic meaning, an arbitrariness that then becomes (sometimes) fixed through practice. It is only the least interesting meanings that bear an arbitrary relationship with the sounds of music, and the fixity of meanings that is taken to ensue is illusory.

Kennett regards Tagg's methodology as semiotic. Tagg also discusses his methodology in terms of semiotics, but with one important proviso, that *arbitrariness* of relation between a sign and its referent does not obtain, as in its development from Peirce's icon and index. Kennett's model, paradoxically, is closer to the semiotics he dislikes precisely because the meanings he suggests listeners may make in his thought experiment do not bear any determinant relationship to the music under discussion. I shall suggest a re-interpretation of Tagg's thought below, but first it needs to be discussed. Tagg and his associate, Bob Clarida, developed what they call a *sign typology*, relating particular musical features to the external world.[19] According to this schema, some (by no means all) musical sounds are taken to *represent* non-musical states. Tagg identifies four different

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[17] Philip Tagg, 'Analysing popular music: theory, method, and practice' (originally 1982), reprinted in Middleton (ed.), *Reading Pop* (Oxford, 2000), p. 81.

[18] Tagg, 'Analysing popular music', p. 97.

[19] Philip Tagg and Bob Clarida, *Ten little title tunes* (New York NY, 2003), pp. 99–103.

categories of sign, of which the most complex is the *anaphone*. This is a musical impulse that appears to translate a sound, a visual sensation, or the way something feels, into musical detail. The sound-world of Maire (Moya) Brennan's 'To the water', for example, is smooth, enveloping, with heavy reverberation, but without any dramatic attacks, seeming to give a musical analogue to the feel of gently flowing water. The percussion that later joins the track is a stylistic necessity, and does not contribute to the anaphone; the reference has already been made. Loreena McKennitt's 'Prospero's speech' is another clear example – quintessential 'music without sharp edges'.[20] The sound-world of King Crimson's 'Coda: I have a dream' is very different. The production on Adrian Belew's voice is heavily compressed, giving the impression of his being squeezed out of the textural space. The full string pad, the incessant drumming, and the never-ending harmonic sequence all conspire to create an aural analogue of a claustrophobic space. Both these are examples of *tactile* anaphones, in that one aspect of the music seems to convey what water, or what claustrophobia, feels like. Such analogues can also be momentary. In Chapter 7 I wrote about the Yes track 'Heart of the sunrise', and about the crisp attacks that accompany the word 'sharp' in the lyrics. These attacks are tactile anaphones for the word. And there's the sound of the piccolo trumpet in the Beatles' 'Penny Lane' which contrasts with the lower brass elsewhere, and appears immediately after the description of the 'clean machine' – the sound of this trumpet is, perhaps, a particularly clean one.[21] *Sonic* anaphones work in a similar way, except that it is non-musical sound that is turned into musical detail. The sounds of screams, sirens and overhead aero engines evoked by Jimi Hendrix's Woodstock performance of the 'Star spangled banner' constitute a *locus classicus* of this technique, but there are many other examples. Lee Dorsey's 'Working in a coalmine' includes, as well as an offbeat snare drum, an offbeat metallic hammer sound, clearly a sonic analogue for the regular strokes of hacking away at a seam. Jethro Tull's 'Rock island' evokes India with the sound of (what sounds like) a svarmandal, as 'Bombay' is mentioned. A moment in Genesis' 'Supper's ready' ('Willow Farm'), although sonically simple, is significantly richer. At 12' 30'', a change of texture is marked by the call 'all change', the blowing of a station master's whistle, and the slamming of (pre-1990s) train doors. The following section of 'Willow Farm' is all about transformation. Returning to the opening, at 13'32'', the lyric ends 'end with a whistle and end with a bang', at which point the train whistle and door banging are repeated, sonically transformed. The lyrics have not been about trains, but the sounds parade a secondary plot, one that refers to old trains, and adds another layer of (non-verbal) meaning. Sonic anaphones shade into matters of intertextuality, which I shall broach in Chapter 9. XTC's 'Summer's cauldron' actually combines two types of anaphone; it provides an

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[20]   That both these examples might be categorized as 'Celtic' is no accident, and such textures are partly responsible for the 'New Age' connotations of some 'Celtic' music, for reasons to be explained below.

[21]   See Cumming, *The sonic self*, pp. 108–10.

aural analogue to midsummer heat through the synthesized sound of crickets in a meadow, and of birdsong. It also uses a string pad, whose pitches use a mechanized slow vibrato that acts as a *visual* anaphone for the shimmer created when heat rises from a flat surface. 'You've got the style' by Athlete uses slow vibrato and a heavy, claustrophobic texture, to a less precise end, but the signification is given by the repeating lyric 'it's getting hot in here'. Visual anaphones are perhaps harder to identify, but include the menacing guitar sound to Steppenwolf's 'Born to be wild'. Explaining this is not straightforward. Recall the rigid smile, teeth bared, of a menacing face. This is the mouth shape that we use to pronounce the vowel 'ee', a vowel that is full of upper partials. That characteristic tone is shared with the guitar sound of 'Born to be wild', hence that sound acts as a visual anaphone for such a mouth.

So much for anaphones. Tagg's remaining categories more subtly concern representation of the external world in music. The *episodic marker* works to position us within the discourse of a particular track. The opening drum figure to the Beatles' 'She loves you', for instance, serves to mark the return of the chorus, for instance at 1'03''. Not all such drum figures in the track serve this function though – that under the title (51''), for instance, simply draws attention to that title. There is a heavy dose of the arbitrary here. The Troggs' 'Wild thing' contains two very obvious examples. At the end of the chorus, the guitar rhythm changes to emphasize the beginning of the bar (24''), indicating a change of section. Subsequently, the entry of the rather strange recorder, at 1'13'', just before the chorus has ended, signals that an instrumental break is about to follow. Some episodic markers seem trivial, but that does not prevent their functioning (and perhaps, the more trivial they seem, the more effective they are). The crescendo at the end of the introduction to Dusty Springfield's 'You don't have to say you love me' simply marks the end of that section, although it also signals that we are in for a dramatic monologue. This latter function is another of Tagg's categories, that of the *style marker,* where a particular musical detail tells us what sort of style we are listening to, or how to relate this particular listening to other listenings – what sorts of norms to bring into play. Most aspects of music serve as style markers, in addition to whatever else they do (and many will do nothing else). The sound of particular instruments (overdriven guitar, drum machine), of particular harmonic patterns (a two-chord loop, a 12-bar blues sequence), of particular rhythms (a ska groove, or that of acid house), of vocal delivery (the growling metal voice, that of the diva), all give information about how to 'prepare our ears', that is, how to recognize the style, in addition to their functioning as part of a track's discourse. Tagg's fourth category is that of the *genre synecdoche*. This is perhaps rarer, and it also shades into questions of intertextuality. One interesting set of examples concerns the use of gospel choirs by a range of musicians, in order to convey something of the assured belief endemic to mainstream gospel: Nick Cave's 'O children' and Melanie Safka's overt 'Do you believe?' are good examples. Andy Stewart's 'Donald, where's your troosers' works differently. The entire arrangement positions the track in its time, that of 1960, and its location, that of

polite Scots society (I have discussed this in more detail in Chapter 7). The function of the guitar that breaks into the texture at 1'55'' is simply to indicate 'rock'n'roll', simultaneously (according to Tagg's argument), bringing into play for an audience a whole set of connotations that attach to the style label 'rock'n'roll'. And it seems this is exactly right for 'Donald', since the connotations of 'rock'n'roll' become immediately foregrounded in the track, in order to be dismissed for ideological reasons. The references of Wolfstone's 'Tinnie Run' are a little more complex, although the track occupies a similar stylistic space, albeit some decades later. It opens with an overdriven hard rock electric guitar, but as early as 15'' in, this is joined by a fiddle and whistle playing what sounds like a fast dance tune, and the rest of a rock band. Which sound is acting as the synecdoche for a foreign style here? Once the Scots pipes enter at 1'41'', the guitar has been placed more as the outsider, particularly as the form of the track will be recognized by a style-competent listener as a dance tune set, and as the guitar itself has doubled the tune (at 1'12''). However, the issue is important both because the opposition is only tentatively resolved (the guitar's aggressive tone is not modified), and also historically, since it is emblematic of the way Scots rock has changed over the past couple of decades.

Tagg's full methodology includes two other important ideas. I shall raise them here, although I shall not use them explicitly. The first is *interobjective comparison*, and it belongs with discussions of intertextuality. The second is *hypothetical substitution*. Here, we imagine altering one parameter of music we are listening to in order to estimate how its effect changes. What if the rock'n'roll guitar in 'Donald' had been a boogie piano? What if the drum figures of 'She loves you' had been absent? What if the trumpet on 'Penny Lane' had been a flute? or an organ? or had been played an octave lower? What if Dusty Springfield's track had been 20 per cent faster? The number of such substitutions we can think through is limited only by our imaginations, but each will tell us something about what is properly effective in the track, for us, even if only minimally so.

Reading Music: Theory

It should be clear from this discussion of Tagg's ideas that only some elements of musical detail contribute to such readings. On 'Tinnie Run', for instance, does the observation that it has a shuffle, rather than a straight, rhythm contribute to what it represents? Or the fact that it moves from minor to major mode? Are these more than simply stylistic features? That they are stylistic features is clear, but such details frequently do not contribute further to the signification of the track. So, which details do? This topic is particularly difficult, since it is not underpinned by any serious research, but it does seem important enough to endeavour to develop a set of conceivable correspondences, to which I shall return in the later stages of this chapter. What is the significance, the meaningfulness, of the actual notes employed? Syntactical elements of music, like syntactical elements of language,

normally permit communication, rather than entering into the act of it. However, some elements seem to do both jobs.

The common modes in use (lydian, ionian, mixolydian, dorian, aeolian, phrygian) are not affectively equivalent. Take a common sequence of chords: I, VI, IV, V. Assume a tonic of D. The sequence of chord labels provides the following harmonic sequences:

Table 8.1   Modal versions of a common harmonic sequence

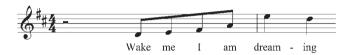| lydian	D	b	g♯⁰	A
ionian	D	b	G	A
mixolydian	D	b	G	a
dorian	d	b⁰	G	a
aeolian	d	B♭	g	a
phrygian	d	B♭	g	a⁰

As Table 8.1 demonstrates, each of these sequences is different (and in practice, they are likely to be amended to turn the diminished triads into minor, or into dominant sevenths with a new root a major third below). Most prominent perhaps is the change from major to minor triads for I and V, but the others can be seen – the change from minor to major for VI is in some cases no less significant. As a working premise, in the abstract, it would appear that a major triad carries connotations of positive emotional states (to put it no more strongly than that), and the minor triad connotations of negative states. One problem is that music is not 'in the abstract' – as soon as triads are put together, possible meanings are compounded. Is, for example, an ionian I–iii–vi–ii–I (i.e. D–f♯–b–e–D) sequence more positive than a dorian i–IV–V–VII–I (i.e. d–G–A–C–d)? Both sequences are musically plausible, and we would have to take into account at least lyrics and instrumentation. But, the force of the triad that we identify as 'tonic' (i.e. one identified through persistence, laterality and emphasis – see Chapter 3) is such that, as a starting-point, I would identify the first sequence above as more affectively positive than the second. And we need a starting-point, provided we are willing to modify it in the case of actual examples. From this, I would suggest that the mode in which a particular sequence of harmonies is couched does have an effect on the signification of those harmonies. As I suggested in Chapter 3, put most clearly, as a mode increases the number of minor intervals above the tonic (i.e. as we move downward in the list given in Table 8.1), then either the greater the degree of negative emotional quality that sequence will connote, or the lower its energy level will seem to be. Whereas lydian mode patterns can tend toward elation (the effect of that 'sharpened' $\hat{4}$), phrygian can appear rather lethargic (the $\hat{2}$ being constantly 'pulled' down to the tonic, the $\hat{6}$ rising 'with difficulty' through successive whole tones to reach the upper tonic). This is very rough and ready, but represents a real starting-point. (Indeed, 'negative emotional quality'

is itself probably too simplistic a notion, as Robert Solomon[22] explores, but in discussing the effect of harmony, it does at least provide an initial anchor.) Many examples could be given: I–VI–IV–VII as it moves from ionian (Talking Heads' 'This must be the place') through mixolydian (Jam's 'That's entertainment') to aeolian (Def Leppard's 'Love bites'); I–VI–IV–V as it moves from ionian (Four Seasons' 'Sherry') to aeolian (All About Eve's 'The dreamer'); VI–IV–I as it moves from ionian (Police's 'Truth hits everybody') to aeolian (Bob Dylan's 'Slow train coming'); I–II as it moves from dorian (Stevie Wonder's 'Visions') to phrygian (Pink Floyd's 'The trial'); I–II–III–IV as it moves from ionian (Beatles' 'Here, there and everywhere') to dorian (Deacon Blue's 'The world is lit by lightning'). Related to this are shifts of key. How are these read? Is the shift sliding (surreptitious?), blatant, does it intensify (sharpwards) or go the opposite way? Take the Beatles' 'Good day, sunshine' as an example of intensification. The chorus is in ionian C (I–V–IV), but the IV becomes reinterpreted as V of B♭, and the verse is in lydian B♭. This lydian nature, which is reinforced by the slide up from chords of B♭ to C at the end of the verse, seems to enrich the 'Good' of the chorus, to make it sound even 'better' because it is reached for (that sharpened $\hat{4}$) and achieved (and note that the song changes key sharpwards too). Simon and Garfunkel's 'Mrs Robinson' seems to work the same way, shifting from the mixolydian G of the verse (and introduction), with its B natural in the melody, which moves via the cycle of fifths to the chorus' ionian B♭, which sounds perhaps more comfortable – the G, despite its length at the opening, seeming slightly unstable because of its mixolydian nature, emphasized by the melody opening on $\hat{9}$. Diana Ross and the Supremes' 'The happening' shifts chromatically, from G ionian to A♭ ionian (at 1'54''). The change of harmony is blatantly unprepared, what some musicians therefore call the 'truck driver's shift'. However, unlike many such shifts, it does not sound forced, perhaps because the end of the verse includes a quasi-cyclic sequence moving through B♭ to E♭ to A♭, then back to D and G. The verse of Neneh Cherry's 'Manchild' begins fairly stably in D, but appears to shift to E♭ around 35''. I say 'appears', because the E♭ is immediately followed by chords of F, D♭ and again E♭, shifting suddenly to b (which acts rather like a tonic) at the beginning of the chorus. These changes appear rather arbitrary, but could be taken as illustrating the disorientation described for the 'Manchild' of the title. More examples could be given, of course, and I suspect each has to be read in context, as above. These readings would usually be considered semiotic, but is the relation between 'sharpness' and 'intensification' or 'affectively positive' an arbitrary one? Is the relation between 'major' and 'positive', and between 'minor' and 'negative' also arbitrary? They have become solidified by practice, certainly, but it is worth noting at this point that we frequently express positive states with expansive (larger) arm movements, and negative states with being 'closed in' (smaller), that is, with particular embodied gestures (matching the 'larger' third of the major triad). More on this below.

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[22]   Solomon, *True to our feelings*, pp. 170ff.

What might we say of melody? I have already suggested that the register in which a voice is singing can carry particular connotations (of effort, of comfort, of eagerness or laziness), but the details of a particular melody can carry more specific signification. Allen Forte[23] suggests that, within the repertory of Tin Pan Alley (and there is no particular reason to restrict his comments simply to that repertory), particular melodic details mark out the lyric that coincides with that detail for special importance – such prevalences as the lowest, highest, longest, most repeated notes of a melody. Take the Love Affair's 'Wake me I am dreaming'. The fast rising initial sweep of the melody (to the title lyrics) emphasizes the dreaming from which he needs to awake (Example 8.1), because "I am not myself", as he sings.

Example 8.1 Love Affair: 'Wake me I am dreaming'; opening melodic phrase

Wake me I am dream - ing

The force of this can be determined by trying Tagg's hypothetical substitution. Imagine turning that opening phase of the melody around (Example 8.2), so that it now falls. The line is plausible, and works equally well against the prevailing harmony, but that change now puts emphasis on the 'wake' rather than the 'dreaming', in other words on the agency of another, rather than on how his protagonist is acting.

Example 8.2 Love Affair: 'Wake me I am dreaming'; hypothetical opening
melodic phrase

Wake me I am dream - ing

That change of sense is palpable, even if hard to put into words. On the Move's 'Blackberry Way', the melodic apex is found on the word 'I', emphasizing the song's being about the progatonist's own concerns, as opposed to the Beatles' 'She loves you', which is about this protagonist providing succour. In Oasis' 'Don't look back in anger', the apex occurring on the first word carries a particular tinge – think about the same song, but with the melodic emphasis on 'back' (the metrical emphasis already coincides with this word) or on 'anger'. Stasis can indicate a lack of interest, while excessive melismas can suggest fussiness. Take Mariah Carey's

23   Forte, *American popular ballad*.

version of 'Without you'. As Harry Nilsson sang it, the song remains unadorned, offering a direct glimpse of his heartache (which is extreme, as we reach the final chorus). But in her version, the virtuosic melisma at 35", for instance, seems to distance the listener, to force focus on her ability rather than her expression (which is not to deny the power of the performance, particularly in its measured, unfussy pace and gospel choir interjections in the playout). Similar analogies can easily be found for other melodic movements. What about a melody where the contour is dominant? How fast is it traversed? By step or by leap? The melody of Frank and Nancy Sinatra's 'Something stupid' (taken by Frank), moves by step throughout, perhaps signifying distance especially as it moves against upper pedal notes sung by Nancy. Everything is kept melodically under control, nothing is extravagant. But then the refrain ('I love you') is marked by a (risk-taking) leap, which she joins by singing in thirds, rather than with a pedal (to which the strings respond by a comically eyebrow-raising ♭VI^7). Perhaps it's not so stupid after all?

In a text that is now rather outmoded,[24] Deryck Cooke once offered an entire lexicon of melodic intervallic movements, and their supposed expressive force. This work has been heavily criticized over the years, partly on the grounds that it confused the evocation of emotion with its expression, and partly for its supposed universality, whereby it regarded these qualities as inherent in the music. If we refuse to think of this in theoretical terms, however, and view it as a set of invitations, as a set of possibilities, to hear particular intervals *as if* they make likely particular readings, some of them are very inviting. The difference between the leap of an octave, for example, and chromatic motion by semitone. One would not choose the latter to accompany the expression of striding, nor the former to accompany the expression of slithering, unless one was being ironic. (The reasons for this will be addressed below.) Other writers sometimes offer similar suggestions. Richard Middleton, for example, in a passage contrasting the blues, African melodic practices and Beethoven, says '[the minor third] seems to suggest acceptance, resignation, and stability [while the major third suggests] a widening of horizons, a challenge and an assertion of Self'.[25] This is akin to the point I made above, concerning the differences between modes. *Why* such a suggestion is plausible will, again, be addressed below. Treated tentatively in this way, it seems to me that some of Cooke's possibilities should be borne in mind. For example, he suggests that an ascending $\hat{1}$–$\hat{3}$–$\hat{5}$ progression in the minor (i.e. dorian, aeolian or phrygian) should result in a phrase 'expressive of an outgoing feeling of pain – an assertion of sorrow, a complaint, a protest against misfortune'.[26] Such a phrase opens the Beatles' 'I want you', where Lennon's expressed need for 'you' is palpable. The same phrase underlies expressions of love in Slade's 'Coz I luv you'. At first this seems strange, but perhaps the line 'You make me out a clown then you put me down' suggests a certain masochistic intensity to the lyric,

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24   Deryck Cooke, *The language of music* (Oxford, 1959).
25   Middleton, *Pop music and the blues*, p. 38.
26   Cooke, *The language of music*, p. 122.

which the phrase underlines. Cooke also suggests that the major $\hat{6}$–$\hat{5}$ produces 'the effect of a burst of pleasurable longing',[27] as in the dominant motif of the Archies' 'Sugar sugar', which later becomes 'you got me wanting you'. Admittedly the nondescript backing adds a layer of sentiment to this expression, but the phrase is apposite. Cooke gives as an example of this a phrase in Irving Berlin's 'Cheek to cheek' ('Heaven, I'm in heaven'). The same melodic outline is present in Elvis Costello's 'Alison'. Here, though, the melody's first note is harmonized differently, and the expression is anything but joyful, as Costello's vocal timbre makes clear. I would suggest, then, that Cooke's lexicon cannot simply be imported wholesale into popular song – melodies are tempered by harmony, by timbre and by other elements – but that it can form the basis for further consideration in any particular case.

It is common practice to speak metaphorically of 'punctuation' in terms of syntax. The cadence, for example, in common-practice music, marks the end of a phrase, and the degree of closure is harmonically controlled. I have already broached this issue in terms of harmony. But how do we read such closure?[28] When it accompanies a particular lyric, a number of possibilities seem to be open. It can be read as affirmation of, or agreement with, the view expressed. It can be read processually as arriving at a particular point, or it can be read as the completion of a particular idea. In Doris Day's 'Que sera sera', the melody seems almost formulaic. It rises questioningly, and refuses to close as the protagonist looks at various life possibilities. But her mother, taking control of the chorus, has the answer, closing securely at the end of the verse. And what is that answer? To accept the vagaries of fate. Note how the melody drops unexpectedly to the tonic in the chorus the second time we hear the lyric '*will*' that is, offering unequivocation (at the end of the second line – see Example 8.3).

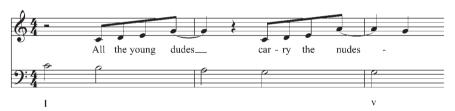Example 8.3 Doris Day: 'Que sera sera'; opening of the chorus

In the Beatles' 'I'll get you', a melodic tonic is constantly evaded until the 'oh *yeah*'. This evasion (the fact that previous points of closure are inconclusive) enacts the 'in the end' of the lyric – it is not a speedy conquest. But conquest it seems to be for, as the melody falls to 'yeah', it does not have the thrill of

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[27]   Cooke, *The language of music*, p. 146.
[28]   Cumming argues that the conventionality of something like the perfect cadence can be understood semiotically, that 'a conventionally ordered aspect of the world … can be viewed as having its own emerging qualities' in a manner related to iconicity (*The sonic self*, p. 103). This is a suggestion I follow subsequently, although without resorting fully to her semiotic position.

'She loves you', sounding instead rather tired. In the chorus of Kate Bush's 'Wuthering heights', the melody reaches the tonic as she announces 'I've come *home*', but refuses to close – the melody moves on as she tries to gain entrance. And, correspondingly, a smaller degree of closure, particularly if unexpected, could mark an openness. The Yardbirds' 'For your love' adopts a common strategy. Although the accompaniment finally comes to a close, the vocal melody does not – the protagonist's promises of what he will do 'for your love' are open to endless continuation. All of these comments could apply separately to melody and harmony, but there is an additional range of possibilities, when melodic and harmonic closure fail to coincide. John Lennon's 'Imagine' provides a fine example. The melody consistently (four times) reaches for an upper tonic, failing to achieve it. By the time it succeeds, the harmony has moved away from the tonic. The two do not coincide until the phrase 'You may say I'm a dreamer', and on the last word, suggesting that it is this quality of dreaming that received greatest attention in the song, and that is supported by its production values (see Chapter 7). And melody and harmony work together in other ways to amplify the affect. On Mott the Hoople's 'All the young dudes', the melodic apex coincides with the word 'nudes', in the second line of the chorus. This itself is a striking image, but as the harmony at that point turns from ionian (specified by the bass line) to mixolydian (Example 8.4), this acquires a particularly bittersweet tone as the melodic A clashes with the harmonic g.

Example 8.4 Mott the Hoople: 'All the young dudes'; opening of the chorus

One particularly important feature of these readings is their provenance. In part, they originate in 'common-sense' notions of what musical syntax is doing (and I shall return to this point later in the chapter). Closure in one domain, for example, is linked to closure in another domain and read accordingly. The fact that such readings appear to be 'second nature' is often a sure sign that they are semiotic. The reason why we attend to the lowest or highest pitch of a line, for example, is because it is the highest or lowest pitch, because of its marked *difference* from all other pitches and semiotic meaning is 'caused' by attendance to difference. A semiotic reading, for instance, would not distinguish between the importance of the highest pitch of a melody and the importance of the lowest. But sometimes this distinction matters, and that 'matters' is not a matter of semiotics. I shall discuss the theoretical justification that operates in such cases below.

In another part, these readings originate in other songs, or at least in other listening experiences, to create a chain of meanings. I shall approach this topic more fully in Chapter 9, but I want to include one particular set of examples here. Deep Purple's 'Child in time' is one of a body of songs reliant for its effect on the aeolian cadence, the cadential pattern moving VI–VII–i (i.e. F–G–a in a aeolian). This cadence in rock is, more often than not, associated with achievement in the face of high odds, what we might identify as its 'nonetheless' quality. This is the realm of its signification. The underlying pattern to 'Child in time' is formed of the sequence i–VII–i; VI–VII; VII–i. The impending, and ultimately realized, disaster apparent in the lyrics is matched by this constant reiteration, demonstrating an undesired actualization of the inevitable outcome. This sense of the inevitability of an unwanted outcome is crucial to understanding the Coverdale Page track 'Take me for a little while'. The verse begins by decorating harmonies of E, moves to a pattern dominated by a, but then sinks back. A short pre-chorus reiterates the importance of a, such that the chorus takes up the sequence a-F–G–G. Failure to resolve to chord I (or here, i), in this example to resolve to a at the end of the a–F–G–G pattern, implies the subversion of an inevitable outcome. Now the subject matter of the song's lyric concerns the inevitability of failure – at the crucial moment, the singer tells his lover to take him just 'for a little while'. Their relationship cannot remain stable, because he's 'growing older'. The harmony, in other words (being read as an aspect of the personic environment), indicates that 'taking him for a little while' is an attempt to subvert the inevitable, that is, the inevitability of failure, a failure that will come about once the final chord i is reached and closure is achieved. For this reason, the track's fade-out, without that happening, is a suitable ending. The Darkness track 'Holding my own' uses the same pattern to energize an avoidance of the inevitable. It is less marked: the analogous a–G–F–G chord sequence accompanies the song's title, asserting that the persona is 'holding his own' in the face of enormous odds; because it is less marked, the sequence functions harmonically as ionian vi–V–IV–V rather than aeolian i–VII–VI–VII. The realm of its signification is nonetheless the same. Note that any substantial substitution of these harmonies would affect their reading, even if it remained stylistically plausible (iv–v–i for 'Child in time', for example). This is but one example of such a chain of references, where the import of a pattern depends on its modification of a previous pattern.

If it is plausible to suggest that particular harmonic and melodic details call forth specific connotations, then it should be much more likely that timbre would do so. After all, timbre is a feature of all sound, whether music or not, and we react to timbre 'in real life'. Particular timbres have indeed taken on the quality of clichés. Held chords on an organ, or a string pad, are often taken to signify serenity, presumably on the grounds that they exemplify a minimum of activity. A virtuosic guitar solo likewise is taken to signify self-indulgence (whether or not this is seen as a value). I shall return to these matter-of-fact readings. Research by Serge Lacasse has supported the notion that particular modifications of timbre imply common readings. He undertook a series of listener tests, comparing eight

types of timbral modification with eight types of connotation. The results are reproduced in Table 8.2.[29]

Table 8.2   Lacasse's timbral modification qualities

	Benevolence	Potency	Naturalness	Temporality	Stability	Distance	Religiosity	Happiness
Normal	2	0	3	0	2	-2	0	0
Reverb	1	1	-1.5	-1	-0.5	2	2	0
Echo	1	1	-1.5	-1	-1	3	1	0
Slap	0	1	-1	0.25	-1	1	0	0
Telephone	-0.5	0	-1	-0.75	0	3	-1	-1
Flanging	-1	0	-2	1.5	-1.25	-1	0	0
Harmonizer	-2	0.5	-3	1.5	-2.5	1	-2	-1
Distortion	-3	0.5	-2	0	02.5	2	-1	0

In this table, the higher the figure, the stronger the effect, negative figures giving negative effects. Thus, slap echo sounded slightly futuristic to Lacasse's respondents, echo a little more dated. Distortion sounded highly malevolent, reverb strongly religious, telephone compression slightly sad, and so on. Such findings as this again represent a useful starting-point, but need to be read in context. For example, distortion has become a fundamental stylistic sign of metal – within that style, it no longer carries the disruptive function it once had for all styles. So, at the end (3`37'') of Trivium's 'Ignition', a song that simplistically expresses anger at the duplicity of a social establishment, distortion is somewhat impotent simply as a means of expression, and so they resort to the effective gradual detuning of a synthesized guitar arpeggio to convey a similar affect. Lacasse's list is useful, but what is perhaps surprising about it is that it is self-evident; his respondents feel about these forms of distortion pretty well exactly how one might imagine. This is not the place for an extended discussion about the value (or otherwise) of lengthy reception tests, but it seems to me that the result of work like this (and also, for example, the much more extensive work reported in Ten little title tunes) tends to be somewhat superfluous in that it simply confirms what competent musicology assumes anyway. Such confirmation is of course welcome and initially necessary, but does not necessarily repay anything like the effort required to discover it.

    What is important is to recognize that not every element partakes of this sort of meaning. The model of communication developed by Roman Jacobson

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[29]   The original table can be found in Lacasse, *'Listen to my voice'*, p. 161.

is useful.[30] Jacobson addresses the six functions that he regards communication as sedimenting: the referential; the aesthetic; the emotive; the conative; the phatic; and the metalingual. This chapter broadly covers his referential, aesthetic and emotive functions. The conative was covered in Chapter 7. The phatic and metalingual are often overlooked. The phatic refers to material whose function is to check that the 'channel' is working, that is, merely to check that communication is taking place. Tagg's episodic markers largely belong to this category, certainly at least in their reference to beginnings and endings. The metalingual refers to material whose function is to check that the 'code' is working, that is, that we recognize the style limits within which we're interpreting. Tagg's style markers belong in this category. And so, while it seems that every musical detail could be labelled functionally, it is only some details that work referentially, aesthetically or emotively.

Reading Music: Examples

So far, I have said that this methodology consists of asking questions of tracks in order to elucidate their signification. As this approach becomes naturalized, you will discover that it begins to be the track that appears to pose the questions, rather than having them imposed by the listener. Take Lou Reed's 'Perfect day'. There is much one could say about this, but I shall restrict myself to a question set by the opening harmonies. It opens with an introduction, using what sounds like I–iv in F. However, as the verse opens, that iv is reinterpreted as i in b♭. The sequence that then underlies the verse is dorian i–IV–VII–III–♭VI–iv–V♯. Why is that first chord minor? It could easily have been major – the melody leaps from $\hat{1}$ to $\hat{5}$, missing the third degree entirely. It could be understood (without further ado) as 'ironic' I suppose, but that's just too easy. Focus closely on the end of the first line: '… and then *home*. Just a *per*-fect day.' 'Home' coincides with the dominant, and the first syllable of 'perfect' with the major subdominant. 'Just' seems less significant, although in its sense as 'only' perhaps it highlights the unexpected nature of that perfection. The effect of the (absent) D♮ in what could be chord I, and the presence of the lower D♭ in what is chord i seems to drag the emotive effect downward – whereas the rest of the sequence has a lightness to it, there is a dark tinge to that opening chord that adds a slight negativity to the perfection of the day (as if, perhaps, it is unlikely to be repeated).[31] Perhaps this hints at the otherwise hard to understand repeated 'you're going to reap just what you sow' with which the song ends? Wild Turkey's 'Gentle rain' moves in the opposite direction. Example 8.5 shows the opening of the verse.

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[30]   See Middleton, *Studying popular music*, p. 241.
[31]   A similar stomach-dropping effect is achieved in the final aeolian ii⁷–vi–i cadence to Grand Funk Railroad's 'Mean mistreater'.

Example 8.5   Wild Turkey: 'Gentle rain'; opening of the verse

The flattened sixth and seventh degrees (in relation to the ionian) mean that to reach $\hat{3}$ (which would perhaps 'normally' be flattened in this context) implies a stretch, an expansiveness of gesture that is so beautifully appropriate to the expression of love in the lyric.

Or, take Elton John's 'I've seen that movie too'. It seems to me that the speed of this track is just slightly too slow to be comfortable, and this is most telling in the downward complex piano blues scale that acts as to lead into the verse, a scale that wanders fractionally out of time. What could be signified by such awkwardness? The only link I can make is to observe that in everyday existence, we encounter instances of speaking just slower than is comfortable, and one notable case where this happens is when someone is expressing a high degree of anger, but is just able to keep things 'under control'. This is a tone that is easy to hear in this song; it amplifies the protagonist's anger at his interlocutor's inauthenticity, whose emotions are simply borrowed from an unspecified film. In Garbage's 'A stroke of luck', it is the texture rather than the speed that calls for attention. Why does it seem so effective? It is full of reverberation, it is dense, and the string pad implies a cocooning context. The lyrics speak of cold 'closing in', they speak of constantly 'falling', they speak of a refusal to change, to escape from this texture. And indeed, from the fade-in with its repeated mechanical grinding sound, it is a texture that seems to offer no alternative, no moments of respite. This is a common set of feelings to express, but the texture of this track matches that expression. A very different example is provided by Dory Previn's 'The altruist and the needy case'. Here, the question is just who is the needy case? The track contrasts a man who is concerned about an almost infinite number of 'good causes' with the singer, who asks why it is that 'he' can't stretch his concern to a concern for her. He is clearly the altruist, and she needs him. However, by the end of the song, the lyrics hint that he is at least as much in need of the intimacy she also lacks. What is interesting is that the setting does nothing to suggest this alternative reading – it does not contribute to the sense of the song in this way. And that's fine, it is a strategy clearly open to musicians, to leave an ambiguity unresolved, to leave that up to the listener.

It is time that some of these varied ideas were put together in the service of individual tracks: separating features out is necessary in order to give them proper consideration, but this process is only useful if they are put together again. Natalie Merchant conventionally sings with a powerful, resonant voice low in tessitura and with the air being forced into the upper palate – a voice hard to forget once encountered. However, on the track 'The ballad of Henry Darger', she chooses

to adopt a very different voice, less forceful, almost childlike, and perhaps this implies the key question the track raises – how does she present him (for Henry Darger was a real individual)? Her voice, in the context of her output, suggests a sympathetic portrayal, but why, and with what effect? The song is cast in a very straightforward fashion – four short interrogative verses interrupted by a bridge – but each verse is immediately ambiguous. Is Merchant addressing Henry, asking who it is who will act for the "poor little girl", or is she asserting that Henry himself will? Perhaps Merchant is embodying the subject of the song, namely two young girls (Merchant's voice is openly double-tracked)? Merchant encountered Darger only through a posthumous exhibition of his work;[32] Darger, a recluse, spent a lifetime writing and illustrating an enormous fantasy in which two young sisters were the leading characters, enslaved (as were countless others) and in need of rescue. The lyric hints at suggestions that Darger's perspective on this work was not entirely innocent (the 'patron saint of girls' is a somewhat nauseating title to be accorded), and yet the song is in no way condemnatory – the final verse, asking who will 'love a poor orphan child', in its answer 'Henry' could almost be asserting that Merchant sees Darger himself as that child. So how is this sympathetic portrayal effected? Instrumentation is one means – the chamber orchestra creates a sense of friction with Merchant's more normal backing – there is nothing aggressive in this setting. The horn line conveys a wistfulness with which it has been associated in recent times, partly because it is holding back just ever so slightly (think Neil Young's 'After the goldrush'), the harp-like gentle acoustic guitar arpeggios imply a pastoral setting, and the fragile clarinet opening statement lacks any self-assurance. These characteristics imply both Merchant's persona's delivery and also the imputed state of mind of Darger. Note how the enveloping sound of the band in the first part of the song slims down after the bridge to provide the barest accompaniment to that final verse, throwing it into relief. The song is cast in the aeolian mode, meaning the cadence (VII–i or F–g) avoids the assertive sharpened leading-note. An unambiguous V (D) appears in the midst of the verse, but each time it is answered with 'Henry, Henry, oh Henry …', reasserting the sympathetic tone. And the final tag is surprisingly long – it is easy to hear this as mourning for the man (Darger) she (Merchant) never knew until after his death. So, a number of characteristics of the song encourage us to a positive posthumous encounter with this strange individual (Darger), an attitude perhaps rather different from that we might have adopted in simply encountering his work unmediated. None of these is conclusive, of course, we can still adopt whatever position we wish, but we now do so in contrast to this presentation.[33]

Queen's 'Bicycle race' is an altogether different example. The title sets a key question – in what sense is this about a race? The key line of lyric seems to be

[32] 'Natalie Merchant biography' (http://www.sing365.com/music/lyric.nsf/Natalie-Merchant-Biography/3CEA058C189748B248256926002783A9, no date).

[33] Note that if, as a result of this track, we approach Darger's work through its perspective, we are making a second-order interpretation of Darger's work.

'I want to ride my bicycle', and ride it 'where I like', which is precisely what a race is not about. Indeed, there is a strong assertion of Freddie Mercury's own individuality here. This is overt in the verse, where he simply contradicts whatever opinion is presented: 'you say black, I say white', etc. Although this may be read as simply an argumentative pose, there is certainly a refusal to be pinned down here – he appears secure in his identity, withstanding external assaults. As a result, this passage can be read as competitive, that is, as implying a race. It would be possible to read the song's harmonic language as an argumentative assertion of individuality too, its almost ridiculous waywardness suggesting a devil-may-care attitude. Although the track centres on an implied tonic A♭ ('I *want* to ride …'), it is reached very unusually (via chords of D and B[34]), and it appears almost incidental. The track interpolates a reference to Queen's own 'Fat-bottomed girls', and this appears as a moment of relaxation, certainly in terms of tempo, although whether it could be read ironically is unclear, since it is unsupported in the accompaniment in any way. The track also interpolates a sequence of ringing bells. These are not a sonic anaphone, since they are actual bells, but the way they intrude on each other implies perhaps a multiple ride through the park (although, again, this is hardly a race, where one would not expect to hear bicycle bells). The bell sequence is followed by a passage of guitar scales chasing each other, at ever closer distances, and here the image of a race is actually brought to the fore.[35] Perhaps the key feature of the track is the way that it overcomes certain dualities. It is an example of stadium rock, and it has something of the anthemic tone common to much of Queen's output, made particularly apparent in the downward phrase[36] to which the opening 'Bicycle' is sung, encouraging participation (after all, it's a bike ride we're all invited to, as the massed bells also make plain), and yet it deals with such a prosaic activity as 'ridin' me bike'.

The Madness track 'Our house' is another example rich in signification. Again, the question seems to be one of presentation. What view of 'our house' are we being presented with? A feature of much of Madness' early music is their chromatic approach to harmony,[37] and this track is no different. The basic pattern is a mixolydian I–v–ii–iv⁻, which hints at the aeolian in the last chord (indeed it could, slightly less easily, be read as aeolian I'–v–ii⁻–iv). This is pretty familiar and unchallenging, if tinged with melancholy. It is how the pattern is used that is

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[34]   Chords whose roots are separated by a minor third form a chromatic sequence often used by King Crimson (and much less often by other musicians) in the sense of a cycle of events that needs to be escaped from but cannot be.

[35]   One of my students (Mark Claydon) has suggested that the relationship between these ringing bells and the ensuing guitar 'race' is akin to the relationship between the revving up of racing cars and their ensuing race. This seems to me at least plausible.

[36]   'Rock anthems' tend to focus on short downward phrases for collective singing. See Ruth Dockwray, *Deconstructing the Rock Anthem: Textual Form, Participation, and Collectivity* (PhD thesis, University of Liverpool, 2005).

[37]   Moore, *Rock: the primary text*, pp. 139–42.

interesting. The verse consists of two repeats of this pattern, in C mixolydian. The first chorus doubles the speed – we again hear the pattern twice (but it lasts for only two rather than four bars) and is transposed up to D mixolydian. The chorus that follows the second verse then adds a further two hearings of the pattern, but now transposed to B mixolydian. Following a strident saxophone solo, the third verse doubles the speed at which the lyric passes – verbal space is, all of a sudden, compressed. And then, after a repeat of the first verse, the final chorus repeats the pattern at all three transpositional levels (beginning on D, B, C and back to D to fade). The lyric fondly recalls a busy, conventional, mid-century working-class childhood: dad off to work early, mum doing the ironing and cooking (and 'so house-proud'), and kids gently running riot, a general busyness that finds expression in the texture. Perhaps it is not going too far to hear the backwards guitar chord with which the track opens as a very palpable return to the past. The repeat of the first verse perhaps suggests that the protagonist is stuck in his nostalgia, especially as it follows the double-speed verse, in which the perspective changes from one of the idealized present to one of the past, a definite looking back from a subsequent vantage-point. It is as if black and white footage suddenly becomes colour at this point, before shifting back. So, again, this is a rather sympathetic presentation, but with a slightly uneasy nostalgia to the fore.

What is the status of these readings? They are only partial of course, but they develop from details of the track as presented to us: they are exploratory forays into the relationship between what we hear and the significance we might place on it. For some writers, they would be classed unequivocally as semiotic. Time and time again, however, I have referred details to the way something would appear 'in real life' as an aspect of our experience outside the world of these particular tracks. For me this is absolutely crucial. In Chapter 1, in the section on 'theory', I made brief reference to the fields of ecological perception and embodied cognition, which I suggested formed the theoretical basis of my methodology. It is time for me to explore these in more detail. I begin with the latter.

Embodied Cognition

What I am calling 'embodied cognition' is an aspect of the super-field known as cognitive science, which has infiltrated many areas of scholarship, and has even extended to the humanities.[38] It has entered musicological discourse,[39] but its use tends to remain at rather an abstract level.[40] My interest was particularly sparked

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[38]   Lakoff and Johnson, *Metaphors we live by*.

[39]   Zbikowski, *Conceptualising music*.

[40]   For example, Janna Saslaw: 'Forces, containers, and paths: the role of body-derived image schemas in the conceptualization of music', *Journal of Music Theory* 40/2 (1996).

by work by Susan Fast and William Echard,[41] but I have taken it in a different direction. Embodied cognition has resonated most strongly, perhaps, in linguistics, psychology, philosophy and aspects of neuroscience.[42] Perhaps a key idea is the notion of *conceptual metaphor*, initially theorized by Lakoff and Johnson. Rather than seeing metaphor as a rather minor aspect of language usage, they reposition it as a dominant feature of cognition, whereby we develop new knowledge by conceiving new experiences in terms of understanding we already have, a process that is often termed *cross-modal*, whereby discreet modes of understanding are thereby linked. Johnson[43] introduces the concept of the *image schema*. The *schema* is an important, and exceedingly rich, concept in psychology that can be traced back to Kant. Johnson himself says: 'A schema is a recurrent pattern, shape and regularity in, or of, these ongoing ordering activities [of our experiences]'.[44] An alternative description I find useful suggests that schemata are 'mental representations of the properties that concepts usually have'.[45] Daniel Levitin brings the concept closer to home: for him, schemata 'frame our understanding; they're the system into which we place the elements and interpretation of an aesthetic object'.[46] Johnson argues that it is our embodied experience of the world that forms the basis for all abstract thought and language, and that this experience is processed, cognitively, as *image schemata*. These are highly abstract things, both simple and very general. It is this generality that enables them to serve as the basis for understanding concepts related to objects, to actions and to abstract thought, in the way that images themselves cannot. In their simplicity, they contain just a small number of parts and their relations: 'their most important feature is that they have a few basic elements or components that are related by definite structures, and they have a certain flexibility. As a result of this simple structure, they are a chief means for achieving order in our experience so that we can comprehend and reason about it'.[47] They can, perhaps, be identified as stereotypes of underlying pattern translatable from one sense-domain (or medium, or mode of understanding) to another, but

[41]   Susan Fast, *In the houses of the holy: Led Zeppelin and the power of rock music* (Oxford, 2001), pp. 132ff. and William Echard, 'An analysis of Neil Young's "Powderfinger" based on Mark Johnson's image schemata', *Popular Music* 18/1 (1999).

[42]   I acknowledge the severe doubts that remain in some circles regarding its claims, doubts that are well served by Leonard Shapiro, *Embodied cognition* (London, 2011). While I believe that the possibilities this field opens up for a meta-understanding of music are worth the risk, their status as *explanation* (of the sort I offer below) has to remain open to uncertainty.

[43]   Johnson, *The body in the mind*. See also Lakoff and Turner, *More than cool reason*, pp. 90ff.

[44]   Johnson, *The body in the mind*, p. 29.

[45]   Mike Rinck, 'Spatial Situation Models', in Priti Shah and Akira Miyake (eds.), *Cambridge Handbook of Visuospatial Thinking* (New York NY: 2005), p. 337.

[46]   Daniel J. Levitin, *This is your brain on music* (London, 2006), p. 234.

[47]   Johnson, *The body in the mind*, p. 28.

originating in bodily experience of the world. It is by means of metaphorical extension that these schemata act as the basis for rational thought, and they serve as the pre-conceptual ground for the process of *cross-domain mapping*, which will become important below. By connecting propositional thought to pre-conceptual schemata, Johnson extends what is commonly meant by 'reasoning' to include activities of the body, a bodily knowing that is intimately and inherently linked with rational processes, rather than separate from them: 'Logical inferences, I am claiming, are not just inexplicable structures of rationality (of pure reason). On the contrary, they can be seen to emerge from our embodied, concrete experience and our problem solving in our most mundane affairs. The patterns of our rationality are tied, in part, to the preconceptual schemata that give comprehensible order and connectedness to our experience'.[48]

An understanding of musical experience as embodied would not, of course, be new, but embodied meaning is not discussed uniformly, even within thinking about music. For Louis Arnaud Reid, for example, a musical work's meaning was provided by an appreciation of aesthetic embodiment. This is how perceived objects convey meaning they do not literally possess.[49] For the perceiver, Reid argued that this comes down to 'the actual presence of what we are sensibly aware of and attending to …'.[50] More recently, Judith Becker describes three, interlinked, modes of consideration of embodied experience: 'the body as a physical structure in which emotion and cognition happen … the body as the site of first-person, unique, inner life … the body as involved with other bodies in the phenomenal world, that is, as being-in-the-world'.[51] In other recent work Naomi Cumming has developed David Lidov's theory of gesture, arguing that 'the music creates a bodily possibility that listeners may entertain, as freeing them from known limitations';[52] she opposes 'feel' to structure, following the work of Charles Keil.[53] My approach, however, is not to seek such escapism (not to accept such a duality), but to observe the grounds of embodied meaning that pay heed to our limitations, which approach calls for the ecological approach I develop below. The mode of cognition which has developed from cognitive science is described as embodied because Johnson sees the body as structural to many, if not most, image schemata, both as a foundational point of experience upon which schemata are built, and also as providing a viewpoint inherent to the structural relations of many image schemata.[54] In addition, he argues for the culturally-determined and -maintained

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[48] Johnson, *The body in the mind*, pp. 99–100.

[49] Louis Arnaud Reid, *Meaning in the Arts* (New York NY, 1969).

[50] John T. Langfeld, 'Louis Arnaud Reid' in Bennett Reimer & Jeffrey E. Wright (eds.), *On the nature of musical experience* (Niwot CO, 1992).

[51] Becker, *Deep listeners*, p. 8.

[52] Cumming, *The sonic self*, p. 193.

[53] Particularly Keil and Feld, *Music grooves*.

[54] Johnson, *The body in the mind*, pp. 33–4, 36–7.

nature of most schemata;[55] these positions are developed variously by Damasio, Gibbs, Kövecses and others.[56]

So, how does this relate to a discussion of song? Johnson's pioneering study refers to an extensive list of schemata, including: containment; path; blockage; centre/periphery; cycle; compulsion; counterforce; diversion; removal of restraint; enablement; attraction; link; scale; balance; contact; surface; full/empty; merging; matching; near/far; mass/count; iteration; object; splitting; part/whole; superimposition; process; collection. The linguistic usage of some of these has been developed by others, and there is no reason why this list should be exhaustive. Nor is there any reason why they should all relate to music. But some very clearly do. Two of the more useful schemata are the 'containment' schema[57] and what Johnson calls the 'twin-pan' version of the 'balance' schema (as in a pair of weighing scales). They come together to enable a powerful exegesis of the song 'All along the watchtower'. The lyric to Bob Dylan's original song has troubled many in its interpretation. The first two verses record a highly allusive conversation between two figures, 'the joker' and 'the thief', while a third narrates an observation from 'the watchtower' of what might be encroaching menace.[58] The key line is the very first: 'There must be some kind of way out of here'. Where is 'here'?[59] A likely supposition is that it identifies some sort of dungeon. Such a room could easily appear in the vicinity of a (historically unspecified) watchtower. The menacing 'two riders' could be seen as offering a 'way out' for the joker and the thief, as mounting an escape. In Dylan's original recording, it is left simply as that. His voice is central in the mix, smothering the guitar except at the points shown in Example 8.6.

Example 8.6   Bob Dylan: 'All along the watchtower'; basic groove

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[55]   Johnson, *The body in the mind*, p. 30.

[56]   Antonio Damasio, *The feeling of what happens: Body and emotion in the making of consciousness* (New York NY, 1999); Gibbs, *Embodiment and cognitive science*; Zoltán Kövecses, *Metaphor in culture: universality and variation* (Cambridge, 2005).

[57]   Johnson, *The body in the mind*, pp. 21–3.

[58]   As far as I am aware, nobody has ever thought to comment that 'along the watchtower' is a barely possible position to be able to take up, a watchtower being, in the biblical times which are so often the source of reference of Dylan's obscure lyrics, tall and very narrow. Of course, 'all along the battlement', despite having the right number of syllables, doesn't quite convey the same necessity for acute observation of the environment.

[59]   I explore this (to me, fascinating) question extensively in Moore, 'Where is "here"?' from the same theoretical perspective that I develop across this book.

Harmonica to the left and drums to the right balance the bass, which is also in the centre. Jimi Hendrix's cover is dissimilar in terms of the soundbox. The kit is now to the left, with a second guitar to the right, but Hendrix's voice and lead guitar, and Noel Redding's bass, are all central. The harmonic pattern is identical, but is articulated very differently, as shown in Example 8.7.

Example 8.7   Jimi Hendrix: 'All along the watchtower'; basic groove

The upbeat was introduced by Hendrix to this song, and it means that the grouping and phrase boundaries do not coincide at the very opening to the track. Rather than the pattern dropping from the tonic and then returning, as in Dylan's version (aeolian: i–(VII–)VI–VII–), the pattern as performed now contains both a rise and a fall from VII (aeolian: VII–i–VII–VI–). The pivot, the centre of the pattern, has now become VII, as result of the empty third beat, which demarcates the pattern. The harmony moves to both sides of this VII, but is unable to escape, throughout the entire song. I suggest that the force of this harmonic reformulation can be best understood as an example of a schema we might term 'pendulum'. The key features of this schema are that it swings from side to side in an arc, but never exceeds the reaches of that arc, and that the arc is symmetrically extended about a central axis. The schema does not appear in Johnson, but has been introduced by Christopher Schmidt.[60] Schmidt does not offer an analysis, but it seems that 'pendulum' combines the two characteristics I mentioned above, a version of the 'balance' schema, and the 'containment' schema. The sense is of the harmonic motion swinging one way (to i) and then the other (to VI), but without being able to break free (of the boundary set by i and VI as extremes), constantly returning to VII. The harmonic motion, then, implies that the joker is wrong, that there is indeed no 'way out of here'. Neither the versions of the song by Richie Havens, nor U2, incorporate Hendrix's upbeat; this implies a different reading of the song, one that fails to use Hendrix's rhythmic rethinking to energize the metaphor that enables us to feel that, for the joker and the thief, 'here' is not somewhere that can be escaped from. The i–VII–VI sequence crucial in this case also coincides with the word 'here' on the Sparklehorse track 'Eyepennies'. There is no overt intertextual reference made – the style of the latter is most often described as 'alt. country': gentle, laid back, disturbingly surreal. In 'Eyepennies', 'here' appears

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[60]   Christopher Schmidt, 'Metaphor and cognition: a cross-cultural study of indigenous and universal constructs in stock exchange reports', *Intercultural Communication* 5 (http://www.immi.se/intercultural/, 2002).

to refer to the grave, to which the narrator will 'return someday' to retrieve an assortment of buried items. It is surely coincidental that a grave is also an enclosed space, although the rigidity of both the soundbox positions and the groove do accord with this interpretation. Mark Linkous' voice is very far forward in the mix, with other sound-sources statically behind him and to each side, while the very slow $\frac{12}{8}$ shuffle metre is only rarely decorated with short upbeats; otherwise, everything is very much 'on the beat'. The same image operates in Queen's 'Now I'm here'. The track is a standard glam rock boogie with voices covering a wide arc in the centre of the stereo field. In the song's introduction, Freddie Mercury's persona takes up four separate positions – hard left and hard right, mid left and mid right. From the outer two positions, we hear 'now I'm here'; at the inner two 'now I'm there'. Toward the end of the track, this 'now I'm here' is recovered, and followed by the declaration 'think I'll stay around', which switches from side to side, perhaps providing an approximate image of 'aroundness'. The annoying inability of music to move backwards in time is a perennial problem in the specification of circular features: what is circular in space can only be cyclical,[61] or pendular in time (depending on the presence, or not, of a definable point of rest towards which a cycle tends).

A second image schema that is particularly explanatory is that of the 'path'. Often this is used (without reference to the concept) of the harmonic language of a great deal of music, where the normative assumption is that a harmonic sequence leads *from* somewhere *to* somewhere else, and that 'leading' is the essential component of the path schema.[62] Here, though, I observe some other uses. In the Beatles' 'Here comes the sun', the sun's arrival (whether at sunrise, or from behind clouds, is left unclear) is marked at 45″, as Harrison's guitar leaps momentarily to the fore. At the second appearance of this moment (in the chorus at 1′16″), an organ doubles the guitar's four-note lick. This is clearly an important moment for, repeated at 2′30″ and 2′42″, the guitar clearly crescendos through its four notes. And during the $\frac{3}{8}$ bridge (from 1′30″–2′4″: 'sun, sun, sun, here it comes') the texture grows both in weight and in range, as a synthesizer line is repeated but each time in a higher octave, while the bass remains registrally stable. It is this regularity of directional growth that implies Johnson's 'path' schema, which has three components. Johnson's 'source' is the lowest register in which the synthesizer line appears, his 'sequence of contiguous locations' is the octave transpositions, while his 'goal' is the effective top of the synthesizer range, although it could also be understood as the moment of escape from the consistent aeolian III–VII–IV–I sequence, achieving a dominant V preparing the retrieval of the verse. The chorus of the Beach Boys' 'Here today' opens with the phrase 'love is here'; to emphasize its presence, the whole band enters on 'here'. However, this had been preceded by a pre-chorus with stepwise ascending harmonic roots, over which Carol Kaye's bass alights on each downbeat with great delicacy, in its upper range. This rising

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[61]   Johnson, *The body in the mind*, pp. 119–21.
[62]   Johnson, *The body in the mind*, pp. 113–17.

bass line is another instance of the path schema, with a focus on the point of arrival (above, it was arrival of the sun – here it refers to the arrival of 'love'). The 'presence' of the bass is unmistakeable. The transience of love, which is the real content of the lyric, seems supported nowhere in the environment – indeed, finally realizing the sphere of reference of the lyric comes as quite a shock after the glittery timbres of the track.

In Chapter 4 I made some small use of Leonard Talmy's cognitive semantics, a close relative to this line of thought. I shall return to further features of embodied cognition below but, before I do, I need to turn to an exploration of an equally valuable perspective, that of ecological perception.

Ecological Perception

At first sight, the field of ecological perception may appear to proceed according to very different principles. It was initially formulated by James J. Gibson.[63] It has been long utilized for the discussion of music by Eric Clarke and a handful of others.[64] In semiotic terms, this work can be understood as reformulating the Peircean concepts of iconicity and indexicality in terms of everyday perception.[65] A key argument in Clarke is that the assumption of static, or fixed, interpretations of signs is misleading. (Naomi Cumming's *The sonic self*, a thoroughgoing exploration of the consequences of Peirce's work for an understanding of some music, is in line with Gibson in her assumption 'that it is a basic psychological proclivity *not* to hear sound as an uninterpreted quality, but to hear it as bearing information that is adaptively useful'.[66]) The key process in Clarke's work is threefold, and can be summarized in the phrase: invariants afford through specifications. An ecological approach identifies *invariants* that are perceived in the environment, constants such as the flowing of water (which we identify as a river), a bounded slab of metal with a sharp edge (which we identify as a knife), or a high-pitched squeak. It observes what actions these invariants *afford*. A river, for example, affords both swimming and drowning. A knife affords both cutting and stabbing. A high-pitched squeak is more complex, without identifying precisely what invariants it has, but such a squeak might afford flight, if it sounds like a mouse, inquiry, if it sounds like a squeaking door, or contemplation if it sounds like (or even is) the opening to a piece of electroacoustic music. The action that an invariant affords may consist of no more than a decision to make sense of that sound in relation to others.

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[63]   Gibson, *The senses considered*; *The ecological approach*.

[64]   Clarke, *Ways of listening*; Nicola Dibben, 'Musical materials, perception, and listening', in Martin Clayton, Trevor Herbert and Richard Middleton (eds.), *The cultural study of music: a critical introduction* (New York NY, 2003); Luke Windsor, 'An ecological approach to semiotics', *Journal for the Theory of Social Behaviour* 34/2 (2004).

[65]   See Moore, 'Interpretation: So what?'.

[66]   Cumming, *The sonic self*, p. 118.

Whichever of these responses we choose will depend on the particular source, for us, that the sound *specifies*. These affordances arise, as can be seen, not only from the environment, but also from the perceiver operating within a particular cultural environment. It is for the perceiver to either swim or drown, for example; that specific environment does not determine their swimming abilities. Bearing the example of the squeak in mind: '[the ecological perspective on musical meaning discusses how] sounds specify their sources and in so doing afford actions for the perceiver …'.[67] Although cognition plays a part in this field, the main emphasis is on the perception of facets of our bodily environment that lead to action without the need for their cognitive interpretation – such action is thus considered *direct*. And this, surely, is how Tagg's anaphones work – rather than consider them part of a non-arbitrary semiotic, it seems they specify sound-sources in the environment, in very much the way ecological perception describes.[68]

Invariants operate at different levels. In music, it is certainly possible to identify those constants that remain necessary to the performance of a particular song, and that remain present from one performance to another. Distinguishing again *song*, *track* and *performance*, at one extreme invariants seem to be those very characteristics that define a particular *song*. At the opposite extreme,[69] the binary metre of both 'Henry Darger' and 'All along the watchtower', or their tonal centres, operate as invariants against which the constant change of individual durations, or of individual pitches, creates meaning, so that invariance can work both externally, and internally, to a track. Most of my discussion here concentrates on its external operation. The importance of this approach is that it necessitates the restraint upon free interpretation that I addressed in Chapter 1 by way of Ricoeur and Johnson. Nicola Dibben, like Clarke elsewhere, conflates this with the concept of subject-position: 'The performance limits its possible readings by encouraging the listener to adopt a particular subject position towards it, which, while not identical to the listener's own subject position (which is due to their [*sic*] personal biography, and therefore differs from person to person), is necessarily at work with or against it.'[70] While I do not directly employ the concept of subject position here, the implication that a track can suggest a possible reading is there throughout.

Before demonstrating the value of the theory in discussion of songs, I need to explore the relationship between ecological perception and embodied cognition, because I argue that they are not contradictory. The relationship between ecological perception and that linguistic aspect of embodied cognition represented in the work of George Lakoff has been addressed indeed by Lakoff. He briefly refers to Gibson's theoretical position in his study of principles of categorization.[71] He

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[67]   Clarke, *Ways of listening*, p. 126.

[68]   I'm grateful to Eric Clarke for our discussions, which, in part, led to this realization.

[69]   Again, my thanks to Eric Clarke on this point.

[70]   Nicola Dibben, 'Representations of femininity in popular music', *Popular Music* 18/3 (1999), p. 336.

[71]   Lakoff, *Women, fire*.

acknowledges the importance of Gibson's work in 'the importance [it makes] of the constant interaction of human beings with, and as an inseparable part of, their environments'.[72] However, Lakoff believes their two positions, as he characterizes them, are not fully compatible. Lakoff's criticism of Gibson's work lies in what he considers to be Gibson's objectivism (the belief that the environment is the same for all who experience it), and in Gibson's failure to deal with '*categories* of phenomena'.[73] While this may be a pertinent response to Gibson's own work, at least from the perspective of a study of categorization, subsequent developments in the field of ecological psychology[74] have markedly developed the theory (and countered any notion of such 'objectivism'), work that Lakoff in 1987 could not of course reference. Clarke makes two important observations: that other writers have made criticisms similar to those of Lakoff; and that Gibson did indeed also imply that 'affordances are the product both of objective properties and the capacities and needs of the organism that encounters them'.[75] In other words, affordances are not *just* present in the environment, as Lakoff (understandably) takes Gibson as believing (it is invariants that are found unambiguously in the environment). *Affordance* is a key term, which Gibson defines thus:

> When the constant properties [i.e. the invariants] of constant objects are perceived (the shape, size, color, texture, composition, motion, animation and position relative to other objects), the observer can go on to detect their affordances. I have coined this word as a substitute for values, a term which carries an old burden of philosophical meaning. I mean simply what things furnish, for good or ill.[76]

Other cognitive scientists and linguists, writing more recently, such as Gibbs, Kövecses and, arguably, Coulson,[77] in the reliance in their work on environmental affordances, clearly see no such contradiction. Lakoff's partial rejection of Gibson reads, perhaps, as a somewhat marginal point, for Lakoff's deeper criticism is of the 'ecological realism [which] cannot make sense of experiential or cultural categories',[78] an 'ecological realism' that, as Lakoff describes, has been erected by others, not by Gibson. Clarke's book, if nothing else, supports Lakoff in this criticism: he cites various other writers, arguing that 'cultural regularities are as much a part of the environment as natural forces, and they exert their influence

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[72]   Lakoff, *Women, fire*, p. 215.

[73]   Lakoff, *Women, fire*, p. 216.

[74]   For example, Reed, *Encountering the world*.

[75]   Clarke, *Ways of listening*, p. 37.

[76]   Gibson, *The senses considered*, p. 285.

[77]   Gibbs, *Embodiment and cognitive science*, pp. 43–4; Kövecses, *Metaphor in culture*, p. 19; Seana Coulson, *Semantic leaps: frame-shifting and conceptual blending in meaning construction* (New York NY, 2001), p 121.

[78]   Lakoff, *Women, fire*, p. 216.

on the invariants of the world in just the same way',[79] a definite development of Gibson's original position.

So, Lakoff's explicit criticism of Gibson's work does not in itself entail a contradiction between these cognitive and ecological positions. Both Clarke and Mark Johnson have addressed a specific issue in music, the notion of *musical motion*, and a detailed comparison of their perspectives[80] demonstrates that their positions do, indeed, seem to be congruent. My reason for choosing to use the topic of musical motion to this end, other than that it is addressed from both positions, will become clear subsequently. Towards the end of Johnson's study of embodied meaning to which I have already referred, he argues that 'we are not merely mirrors of a nature that determines our concepts in one and only one way. Instead, our structured experience is an organism–environment interaction in which both poles are altered and transformed through an ongoing historical process. In other words, the environment is structured in ways that limit the possibilities for our categorizations of it.'[81] The terms of this assertion are strikingly similar to the line Eric Clarke takes: 'Perception is the awareness of, and continuous adaption to, the environment … Ecology is the study of organisms in relation to their environment' and thus Clarke's approach is 'ecological because it takes as its central principle the relationship between a perceiver and its environment'.[82] The first specific point to note is that Johnson and Larson had access to a draft of Clarke's argument, and explicitly regard Clarke's perspective as supporting theirs.[83] They make this claim in the context of their contention that 'musical motion is just as real as temporal motion and just as completely defined by metaphor'.[84] Compare Clarke, discussing recordings of auditory sequences of events: they 'are not heard as specifying apparent or metaphorical events: they specify perceptually real events that happen not to be present'.[85] In this argument, Clarke uses Stephen McAdams' notion of a 'virtual source', coined by analogy with the 'virtual object' of optics, a concept that identifies the 'object' seen in a mirror or a painting.[86] Both Clarke's and Johnson's theoretical stances admit ambiguity over 'what' is moving in music. Johnson and Larson set out two possible viewpoints, that of the participant in musical motion, and that of the observer of music that is in motion, depending on whether 'you are travelling over the path that defines a particular music piece'

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[79]   Clarke, *Ways of listening*, p. 40.

[80]   As found in Johnson and Larson, '"Something in the way she moves"', later refined in Johnson, *The meaning of the body*, and Clarke, *Ways of listening*, pp. 62–90.

[81]   Johnson, *The body in the mind*, p. 207.

[82]   Clarke, *Ways of listening*, pp. 4–5.

[83]   Johnson and Larson, '"Something in the way she moves"', p. 77 fn 9.

[84]   Johnson and Larson, '"Something in the way she moves"', p. 77.

[85]   Clarke, *Ways of listening*, p. 71.

[86]   Clarke, *Ways of listening*, pp. 71–2. Stephen McAdams, 'Recognition of sound sources and events', in Stephen McAdams and Emmanuel Bigand (eds.), *Thinking in sound: the cognitive psychology of human audition* (Oxford, 1993).

or you are at 'a distant standpoint from which you can observe the path through a musical landscape that defines a particular work'.[87] Indeed, Johnson argues unapologetically that such ambiguities are 'typical of a vast range of abstract concepts, including causation, morality, mind, self, love, ideas, thought and knowledge'[88] and are thereby intrinsic to our everyday experience. Clarke also acknowledges this duality, describing the alternatives as the movement of musical objects (a perception more common with polyphonic textures) and as self-motion (more common with homophonic textures – 'movement of the listener in relation to the environment'[89]). He notes, though, that the viewpoint(s) specified by the motions of particular sequences of sounds can be left open and do not require resolution; music is thus 'underdetermined'.[90] As Johnson suggests, this duality is important beyond the discussion of motion in music, since the possibility of aligning one's identity as a listener with that of the track's persona, or with the track's observer, is a point I made in Chapter 7.

Clarke approvingly notes a comment by Watt and Ash that 'loosely speaking, music creates a virtual person'. In this sense, Watt and Ash's virtual reality is reality itself, but at one remove. Mark Johnson focuses also on what we might call 'reality at one remove', insisting that if 'concepts of musical motion … turn out, under scrutiny, to be anything but clear, literal, and unproblematic' then 'Musical motion must be some kind of metaphorical motion'.[91] At the very least, Clarke offers an alternative to this insistence, this *must*, but both his 'virtual', or non-present reality, and Johnson's metaphorical reality, exist at equivalent distances from experienced 'reality' – an equivalence that, as Johnson and Larson state, Clarke's position supports. So is the difference between these two positions material? I argue that it is not. Johnson and Larson insist that the process of making sense is not one of 'experience first, understanding second', just as Clarke insists the process is not one of 'perception first, cognition second'.[92] Johnson and Larson:

> We do not merely experience a musical work and then understand it. There is not experience first, followed by our grasp of the meaning of that experience. Rather, our understanding is woven into the fabric of our experience. Our understanding is our way of being in and making sense of our experience.[93]

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[87]   Johnson and Larson, '"Something in the way she moves"', pp. 72, 73.
[88]   Johnson, *The meaning of the body*, p. 259.
[89]   Clarke, *Ways of listening*, p. 76.
[90]   Clarke, *Ways of listening*, p. 88.
[91]   Johnson, *The meaning of the body*, p. 246.
[92]   It seems to me unproblematic to effectively equate perception and experience (see Reed, *Encountering the world*); cognition and understanding.
[93]   Johnson and Larson, '"Something in the way she moves"', p. 78.

Clarke:

> the standard cognitive approach is to regard perception as simply the starting-
> point for a series of cognitive processes … the ecological approach presents
> the situation entirely differently … perceiving organisms seek out and respond
> to perceptual information that specifies objects and events in the environment,
> and this perceiving is a continuous process that is both initiated by, and results
> in, action … while mainstream psychology presents the temporal aspect of
> perception as a stream of discrete stimuli, processed separately and 'glued
> together' by memory, an ecological approach sees it as a perceptual flow …
> Ideologies and discourses, however powerful or persuasive they may seem to be,
> cannot simply impose themselves arbitrarily on the perceptual sensitivities of
> human beings, which are rooted in (though not defined by) the common ground
> of immediate experience.[94]

For me, the important point here is the congruence between descriptions of
the same process as on the one hand 'woven' (Johnson and Larson) and on the
other 'continuous' (Clarke). The way to move between *conceptual metaphor*
and *ecological perception* is perhaps to suggest that the ecological experience
generates schematic structures (structures that Johnson would argue *extend* our
perceptual experience), and that underlying what we may want to call the 'truly'
perceptual is metaphorical abstraction, even if only primitive:[95] in Johnson's earlier
words, 'I now want to pursue this claim more thoroughly by focusing chiefly
on the nature and operation of "image-schematic" structures of meaning. This
requires an exploration of the way in which our perceptual interactions and bodily
movements within our environment generate these schematic structures that make
it possible for us to experience, understand, and reason about our world.'[96] If we
accept that there is general congruence between the position Johnson takes up and
those of other theorists of embodied cognition to whom I shall refer, then on the
basis of this comparison of understandings of musical motion, I contend that there
is no less congruence between principles of embodied cognition and ecological
perception and, thus, that the hermeneutic perspective I adopt here is not self-
contradictory in utilizing variously the languages and findings of both.

So, how does this enable fruitful understandings of songs? I observe a few tracks
from this perspective, returning first to 'Good vibrations'. Aside from the semiotic
'meaning as difference' discovered in the transpositions of the track's closing
hook, what else can be said? The opening to the track is unusually assertive. There
is no introduction, simply the announcement of the singer's almost breathless
identity, 'I', followed by an empty bar before we find out what this 'I' is about.

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[94]   Clarke, *Ways of listening*, pp. 41–3.
[95]   I am very grateful to Patricia Schmidt for this particular characterization of the
relationship, far more elegant than I was able to come up with.
[96]   Johnson, *The body in the mind*, p. 19.

The 'I' specifies a source, an individual speaker, whom we encounter unplanned (that lack of introduction), suddenly, in a way (I would suggest) that will always be with some apprehension; the immediacy of the encounter is dependent on the metaphorical space that surrounds the 'I'. What about that opening descending sequence? Perhaps its most immediate function is intertextual (see Chapter 9), in the reminiscence it permits of stylistically similar tracks such as the Turtles' 'Happy together', a track whose lyric takes up a similar (although less nuanced) position; the tracks resemble each other in their bass lines, but without imposing a necessity of interpretation on the act of recognition. The delicacy of the bass line also acts intertextually, reminding us as it does of Paul McCartney's upper register playing. Here, the historical location of 'Good vibrations', as part of the attempt to upstage the Beatles' *Sgt. Pepper* is inescapable. The theremin line, on which some of the track's notoriety is based, is perhaps best understood via Tagg's category of *genre synecdoche*, whereby the pure, slightly ethereal, quality of its tone calls to mind the entire genre of science fiction movies, although whether it brings with it (as Tagg would suggest) the connotations of B-movie status (cheap effects, poor plots, the emphasis on wonder) attendant on the sound-world is moot.[97] Various other aspects of the track ask for this sort of treatment – in the competing melodic lines at the end, for example, we are given a choice as to which to identify with. Perhaps most importantly, we can choose to switch our identification from one time to another. Do we exult in the vibrations ('good, good, good vibrations'), or do we keep an eye on the relationship ('she's giving me …')? And this is where the bridge works so well since, in jettisoning everything from the texture (at about 2'15''), an important stage in the plot is reached – this is surely preparation for a greater level of attention that we are asked to give, and it is in that moment that the change happens. The sequence that becomes reversed, though, and that is key to my interpretation of the track, seems peculiarly inert. Many another sequence, and an alternative set of transposition levels, would have signified in the same way, since it is only the relative levels, conjoined as they are to the lyric, that carry the signification. This would suggest that an ecological perspective is not all-explanatory, but that where conscious interpretation is necessary, we do need to talk in terms of symbolic reference.

This is only one among very many examples I could cite. Take the Beatles' 'With a little help from my friends' and, in particular, the use on this track of the tambourine. I have recently realized why this is so effective, and it is to do with the strange pacing of its shuffle rhythm. Because of the speed at which one needs to move a tambourine to get a decent rattle of the jingles 'in real life', the particular speed of this tambourine sounds just too slow (particularly in the chorus preceding the final bridge). It seems to me this helps to portray Ringo Starr's awkwardness, perhaps reluctance, to admit his dependence in that final bridge, and I note that

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[97]   I am grateful to Milton Mermikides for reminding me that for some contemporaneous listeners, the theremin's electronic nature adequately represented the idea of 'pickin' up' vibrations from the ether, particularly since it is sounded without physically touching it.

this realization is dependent on the way this sound specifies the movement of a tambourine in natural surroundings – the speed with which a tambourine moves in reality is an invariant feature of its construction.

I have already referred to John Lennon's 'Imagine', and the moment at which melodic tonic and harmonic tonic first coincide, after a number of near-misses, on the word 'dreamer'. This observation seems to back up Lennon's uncertain ideology – the oft-noted position that he was 'all talk and no action'. However, it is harder to suggest that harmonic/melodic closure specifies closure in some other realm. Here, I'm taking it as specifying secure affirmation, specifically of the stance occupied by 'dreaming' rather than 'doing', taking the accompanying lyric as key. It may be that we can only understand this move through Peirce's symbolic category, rather than directly ecologically, and here I'm reminded of two other positions. The first is Luke Windsor's argument that even using the ecological model, 'thirdness' is always necessary, that the symbolic 'interpretation' of a sign is a necessary stage, is what we engage in.[98] The second is David Sless' insistence, in his critique of semiotics, that interpretation is not simply, or even mostly, the decoding of a message, but is marked initially by a quality Sless calls 'letness' – one begins from the creative act of allowing something, in one's own experience, to stand for something else.[99] Both of these critiques imply that at the root of interpretation is a creative act, but it is not an act built out of nothing. It is this bounded position that seems so well-addressed in an ecological manner – the meanings I discuss here, and have put forward throughout, are not encoded in the music in such a way that they permit only one 'decoding', but nor are they simply flights of fancy, in that they all start from sources specified in the recordings.

I have previously noted that 'Good vibrations' is unusual as songs go, in that its course maps out a change of position on the part of the persona. Cilla Black's singing of the Bacharach/David classic 'Alfie' is also, as we have seen, a song that marks a change of position. I recapitulate some of its details, but take the argument further. Black's persona is at first rather cowed by this Alfie, a man who holds it 'wise to be cruel', a position that corresponds to the way she pronounces his name, with the stress always on the first syllable, as if she were pleading with him to come to an accommodation. However, after a bridge that threatens to challenge the harmonic world of the opening, her enquiries become an assertion: 'I believe in love'. A chromatic bass line moves us into what is formally a new area – what started as the third verse veers off somewhere new – an area where she insists that 'without true love we just exist, Al*fie*', stressing for the first time the last syllable of his name. Against the invariant of her approach to her lover, this moment specifies our perception of her inner change, a change that in everyday life is often marked by a difference of facial expression, and that is modelled here by the shift in harmonic language and the transgression of normative formal practice. It thus affords us the possibility of extending our understanding of how

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[98]   Windsor, 'An ecological approach'.
[99]   Sless, *In search*.

an individual may respond under the pressures her persona is portrayed to have endured. Indeed, we can now see that the major argument of Chapter 7 can be reformulated thus. The environment in which the persona moves is specified (to use ecological language) by three musical domains: the textural matters normally considered under the heading 'accompaniment'; the harmonic setting, including the modal/tonal vocabulary; and the formal setting or narrative structure, that is, the order in which its events take place, and the patterns of repetition within this order.

Billy Bragg's recording of 'The Home Front' relies for its force on a bald presentation of detail, which seems particularly notable for a character like Bragg whose name is founded on his integrity, on his live performance. Bragg sings this rather equivocal song about English identity, accompanying himself on electric guitar, with a full brass band behind him. The band, however, is bathed in reverberation. At one point, Bragg sings of nostalgia being the opium of the age. Bearing in mind that the production on the band sounds so strongly reminiscent of David Bedford's similar writing behind a track such as Roy Harper's 'When an old cricketer leaves the crease', and bearing in mind also the association such bands have with a then almost-past, and now dead, mining culture, it seems to me that the sound of these glorious cornets and flugelhorns reeks of that very nostalgia. Perhaps this is why Bragg's vocal is so dry; the visual image is perhaps akin to the contemporary use of black and white newsreel footage, as a backdrop to a talking head. Bragg isn't part of that world, they live in separate spaces; one resonant, one dry. So what of the track's strange ending, as a heavily compressed recording of 'Jerusalem' intrudes on the band's gentle exit. Surely to sing 'Jerusalem' is simply to evoke that very nostalgia Bragg is uncomfortable with? But that was not his intention: '*Jerusalem*, I think, should be the national anthem. I think it's the most powerful statement of pride in what the socialist tradition in Britain is about.'[100] In the article he does move on to offer an explanation, but what is important here is, first, the way that this ultimate expression is treated. It does not sound as if it is coming from either Bragg's, or the brass band's, world. At first appearance, it sounds as if it might be coming from under water, enacting the sinking that Jerusalem, that is, Britain, appeared to the left to have endured under Thatcher. Simultaneously, it situates the narrative somewhere in the 1940s, since this sonic modulation also specifies the typical sound of interference as on a contemporaneous radio broadcast. And yet 'Jerusalem' is not swamped by the sound-world it finds itself in – it remains recognizable – perhaps the possibility of survival is made apparent. Bragg is also actually demonstrating the necessity of interpretation in that he himself offers an interpretation that was certainly at odds with what was the 'normative' (jingoistic) reading of 'Jerusalem' in 1986. Can he, though, escape from the nostalgia that hearing such a song inevitably brings to so many minds? And, in presenting it to us so problematically, is he not implicating

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[100]   Billy Bragg and Ian A. Anderson, 'The taxman's poet', *Folk Roots* 42 (December 1986), p. 27.

us in that nostalgia too? These thoughts, to which there is no unequivocal answer, only arise from noticing what sound sources appear specified in the last half minute of the track.

Tori Amos' 'Hey Jupiter' serves to bring together an ecological perspective with a discussion based on proxemics (Chapter 7). In Chapter 4, I suggested that the intimacy of the song is, at least in part, given from its excess of pronouns. We can now add to that understanding. Nothing intervenes between Amos and the listener; we can clearly hear her intakes of breath; the piano is far in the distance and has little width even though, if we think about it, we will probably presume she is playing it simultaneously with singing: her voice has greater width, although she does not cover the entire space. This intimacy is an aspect of our everyday experience – we respond by coming close to someone speaking to us softly and in a low voice. The intimacy is particularly clear in her vocalise at 2'20'', a moment of unself-consciousness that is particularly affecting, and a response to the introduction of an electric piano that increases the sense of environmental width. It is reinforced by the constant addressing of 'Jupiter' as 'you', and we are invited to take on the persona of Jupiter. However, the repeated line 'no-one's picking up the phone' makes better sense if the song is understood as an interior monologue, to which we are made party. Recognition of this (and other similar lines) keeps us uncertain of our position, enabling the maintenance of a certain interest.

What about tracks that do not have such an overt reference to the world? Is it even possible to read melodic and harmonic patterns ecologically? The Vapors' 'News at Ten' suggests that it might be. What is specified by the opening bass line? First of all, of course, a guitar itself. The harmonic sequence is G–D/F♯–C/E–D/F♯. The descending bass line cannot continue further because of the (normal) tuning of an electric guitar, bass string E. The line thus returns on itself. The best way of conceiving the import of this is actually, I think, through the image schemata for the balance and the cycle:[101] the line is beautifully balanced between its outer points (G and E), swinging constantly via the F♯; but it also cycles around this unending sequence, each time a little further into the narrative of the song, but not having gained any wisdom from the encounter the lyrics narrate, until much later in the song (as noted below). But then, second, there is the treble-rich modulation, as if the line is partially hidden, an awkwardness picked up by the subsequent continuation of the sequence to root position C (the F♯–C move executed quite unself-consciously, it seems). The song concerns generational non-communication ('still I can't hear you' repeated *ad infinitum* to the end) and leads to a climax (which in the context of these lyrics, in most adults' experience will specify one or more adolescent arguments). The tension grows over that initial sequence and, when the high point is reached, a bass guitar G–F♯–E–D comes to the fore (it had been heard earlier, but not in a prominent position). This finally completes its path down through C–B–A–G, this downward scale neatly signalling the close of the track (acting as both an 'episodic marker' and the conclusion to a

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[101]   Johnson, *The body in the mind*, pp. 74–96; 119–21.

'path' schema). The attraction of this line is such as to encourage desire for such non-communication, for the communality offered by such overt opposition; the environment outlined here is a historical one, but a probably inevitable aspect of adolescent experience in UK culture.

Seth Lakeman's 'The charmer', to which I referred in Chapter 5, is perhaps more perplexing. Over the opening strummed guitar, with extreme width, we hear a compressed, and narrower, vocal vowel approaching at speed and stopping abruptly, but with no reverb. The verse continues with the same intimate presence, and an underplayed guitar and bass. The accompaniment grows in power for the chorus, and Lakeman's voice is double-tracked with a little more reverb. Such double-tracking is perhaps problematic from an ecological standpoint, although its purpose is to thicken the voice, to provide a greater sense of projection as if emanating from a more resonant space, and in this it is an able mimic of reality. Lakeman's persona recounts a narrative of the past, and the sense is of the details being private, but the general tenor (the chorus) being available to the public. The listener is in a privileged position. But then, in the final verse, at 1'56", the line 'she has two hearts, I have none' is doubled at the third by Lakeman. This simple word-painting ruins the illusion of intimacy, and we realize that the tale is not being vouchsafed to us personally. This use of self-doubling is now commonplace, and it is a moot point whether this destroys an ecologically valid response or not. Does it perhaps increase his sense of authority as teller of the tale, achieving a mode of delivery that we cannot?

Finally, here, I take a single track which illustrates a number of these perspectives. Example 8.8 outlines the two-bar groove that is so definitional of Annie Lennox's 'Walking on broken glass'.

Example 8.8   Annie Lennox: 'Walking on broken glass'; bars 1-4

It has a hard-edged quality, which is intensified by its being doubled at the octave (and with a prominent harmonic a further octave higher). It seems unproblematic to describe this timbre as a sonic anaphone: the actual sound is reminiscent of the sound of shattered glass. It is not an exact reproduction, of course, it doesn't

quite specify that sound source, but in the timbre's crunchiness it is a musically coherent representation of that sound. The actual sound chosen is possibly the best representation one could get from a sound-source with a precise pitch (unlike the actual sound of shattered glass). Note, also, the string portion of the groove. Because the attack is so precise across this timbre, I suspect it is a synthesizer patch rather than actual strings, but the difference is not material to my argument – I shall continue to identify them simply as 'strings'. The most obvious feature of these two lines, those of the keyboard and the strings, is the nature of their interlocking. After an opening in which they threaten to work across each other (both the strings' first two rests are masked by the keyboard line), they coincide on no less than four successive offbeats. The precision of this coinciding, while easy to achieve through quantizing, is nonetheless striking because it avoids the obvious downbeats. It is as if the two dare not get out of alignment until the end of second bar. Even if one has not experienced the sensation, it is easy to creatively imagine walking across a floor, reaching broken glass, treading very carefully so as not to injure oneself, and then reaching the other side and walking normally again. That process seems to me to be rendered into music by these two bars: what is represented needs to be contextualized, as this is by the song's title, which Lennox announces immediately after we have heard these four bars, but once this is done, the potential link in the listener's mind is made. On two counts, then, we have a potential experience from everyday life (the sound of broken glass, and the experience of walking across it) rendered into music. A great deal more could be said even about this tiny moment of one particular track, but I restrict myself to just one further comment. At the end of bar 3 of Example 8.8, the two instrumental strands offer alternative harmonic realizations of the underlying I–IV–V process. The keyboard inserts a potential I (giving I–IV–I–V), while the strings are more fussy, perhaps a further illustration of the care one must take walking across such a terrain: the result of these two separate realizations is that on the second half of the third and fourth beats of bar 3, the two strands disagree – we twice have an F against an E, and the fact that neither ever gives way (the two are, of course, dissonant, even if the second has a lower level of dissonance) intensifies both the carefulness and the hardness already referred to.

As I have mentioned, at 8″ Annie Lennox's voice enters the track with the title. She repeats the first two words, and then on 'broken', a second Annie can be heard in the distance, and slightly to the right, doubling the line an octave higher (thereby conforming to a pattern already set by the keyboard). At the end of the verse, just as she heads into the repeated refrain (at 54″), a second Annie offers a contrapuntal ornamentation of the main melody. This device, of vocal self-accompaniment, we have already encountered in the Seth Lakeman example. At 17″ into the track, a drum kit enters. It is situated in the centre of the stereo space, behind Lennox's voice, but with the offbeat marked simultaneously by the snare and a handclap slightly to her right. At 42″ we have the entry of a guitar, but now slightly to her left. At 1′38″, three cymbal crashes to the extreme right illustrate the sung phrase 'windows smash' (another example of a sonic anaphone – in such

carefully produced work as this, it seems very difficult for producers to avoid these illustrative anaphones), but the first of these subtly echoes on the left. During the bridge section (from 1'58''), a subtle piano arpeggio figuration that is situated to the left issues in a string arpeggiation that climaxes to the right; the piano repeats but this time is answered by a repeated two-note guitar figuration to the right (c.2'10''), and then an electronic perturbation, pulsing at the rate of a semiquaver, moves around the stereo space from side to side, from 2'12''. This is simply a description of some of the textural events that can be heard in the track, behind Annie Lennox's central voice. It can be seen (and heard) that there is a concern to match what is happening on one side of the stereo space with what is happening on the other side; and this is by no means unusual.[102] This idea we have already encountered – it is a temporal extension of the balance image schema. Note that this series of balances, between left and right, are not symmetries: Johnson is clear that symmetry is only a limiting case of balance operating in the visual domain;[103] perhaps the key idea is that what happens on either side of an axis does not provide *equality* but *equivalence*. It is a norm, then, for sound-sources to be balanced in the stereo field, either side of a central axis that is normally occupied by the lead voice, the persona. The question is, why should this be? Johnson encourages us to start from the body; Clarke, too, suggests beginning from the observation of the organism in the environment. When hearing a new sound in an environment, we are able to judge its location by the subtle difference in time between the sound-waves reaching first one, and then the other, of our ears. We will then frequently turn our heads towards it, so that the sound-waves set in motion by the sound-source reach both ears simultaneously. Achieving this orientation, we are able visually to identify the source of the sound (which is to be understood as an environmental invariant, in ecological terms) and thus to determine what action to take. The seeking of balance is thus endemic to our acting as aural beings; rather than having to determine why it should be that we prefer the soundbox to be balanced, it would require determining how we would cope were the soundbox not to be balanced. Indeed, as I have argued elsewhere,[104] we are struck by the strangeness of an orientation that does not operate this way: Such an orientation is the marked term of the pair and requires addressing. So much for these small portions of one song. One thing remains, and for this I return to the opening groove, which so aptly encapsulates the experience Lennox refers to by way of the track's title. Having heard the track, we realize that those elements that remain firmly in place, both in terms of stereo and in terms of their distance from the listener, are Lennox's voice and persona, and the groove that represents the placing of the protagonist's feet on broken glass. Neither have moved from their central position. Or, rather, they

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[102]   I chose to write about this track purely because of the opening groove – such balancing details are ubiquitous.

[103]   Johnson, *The body in the mind*, pp. 81–2.

[104]   Allan F. Moore and Ruth Dockwray, 'The establishment of the virtual performance space in rock', *twentieth-century music* 5/2 (2008).

have moved but in one dimension only, that of time. And, again, this is what we would expect of our own actions if we were walking, carefully, on broken glass. No sudden shifts of direction or speed, everything careful, considered and poised.

This discussion of a range of individual tracks has raised three particular problems for an ecological approach. If you did not recognize them as problems, this simply serves to reinforce their ubiquity: I refer specifically to the spatial divorce between Tori Amos' voice and her piano; to the double-voicedness of the climax to Seth Lakeman's performance, which is also found in Annie Lennox's chorus; and to the association between everyday events (walking across broken glass) and their representation in music.

To deal with the last issue first: having made such an association, accounts of the understanding of music normally leave it at that and move on. But we should not be so hasty. What is it that permits us to make such analogies? We take them for granted in respect of language – that is, after all, the primary purpose of language, as a communicative medium. Music, however, is not universally recognized as such a medium, and so additional evidence is necessary to enable us to make such a link. Such evidence, it seems, is found within embodied cognition, and specifically in the concept of *cross-domain mapping*. 'Cross-domain mapping is a process through which we structure our understanding of one domain (which is typically unfamiliar or abstract) in terms of another (which is most often familiar and concrete).'[105] Zbikowski illustrates the concept by suggesting we understand electrical conductance through a hydraulic model – we talk of electricity flowing, for example. In this case, I argue that two specific aspects of the music at this point (the timbre of the keyboard; the delicate avoidance of downbeats in both sound-sources) are telling us how to cognize particular features of our interaction with broken glass. Such an understanding would seem to me to lie behind possibly all attributions of extra-musical meaning to specifically musical processes, and this is an awareness worth achieving. Compare the compartive paucity of a semiotic understanding, in which the relationship between these two things is accepted merely because they have become linked through association over a period of time.

The double-voicedness that I have isolated in Lennox and Lakeman presents a different problem. What are we to make of these aural events that it is impossible to encounter outside the virtual word of the recording? Embodied cognition offers a relative to cross-domain mapping in *conceptual blending*. According to Fauconnier and Turner, conceptual blending is a 'basic mental operation' that is 'an invisible, unconscious activity involved in every aspect of human life'.[106] Conceptual blends occur through 'integrating partial structures from two separate domains [*mental spaces*] into a single structure with emergent properties within a

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[105]   Zbikowski, *Conceptualising music*, p. 13.
[106]   Fauconnier and Turner, *The way we think*, p. 18.

third domain'.[107] Two or more 'input' mental spaces[108] are compressed into a single output 'blended' space, while 'the structure that inputs seem to share is captured in a generic space'.[109] A subordinate category, of particular use to the examples posed by those features of Amos' and Lakeman's performances I have referred to is that of the *mirror network*, which they define as an 'integration network in which all spaces – inputs, generic, and blend – share an organizing frame'.[110] Among the examples they give to clarify is their report of an article from the *New York Times* from July 1999, which notes that the Egyptian runner Hicham el-Guerrouj had broken the world mile record. The article included an illustration that portrayed el-Guerrouj together with mile record holders from each of the five previous decades, illustrating the distance behind el-Guerrouj that each would have been, had they all raced together. Such an illustration, or even just a description, they claim, prompts a reader unconsciously to construct a blended space. Input spaces consist of aspects of the six individual races concerned; in the blended space we will find some elements of those races (the individual winners and their relative times, the presence of a finishing line in each race) but not others (the actual location of the individual tracks, the identities of the losing runners in each race, etc.). While Fauconnier and Turner describe such a blend as 'immediately intelligible and persuasive', its construction is 'remarkably complicated'.[111] To return to Annie Lennox's double-voicedness, I would suggest this appears as an *unreal realism*. It is realistic in that it is presented matter-of-factly, and the voices are not manipulated in any way beyond the ordinary. And yet it is unreal in that the manner of presentation can only exist in the artificial environment of the recording. It seems that this unreal realism is an example of just such a blend. In the case of Tori Amos, her vocal performance takes place in one input space, and her piano accompaniment in another (after all, anecdotally, most listeners are aware that different elements of a recording are recorded at different times, and even perhaps in different locations, whatever may have been the actual case here). Our hearing of the track prompts both this construction and the creation of a blended space in which her voice (and hence her persona) is in an intimate zone relative to us, but her fingers (and thus, again, her body) are further distant. The same explanation lies behind Lakeman's self-accompaniment. Here, there is no doubt that his voice is recorded twice at separate times since one cannot produce two vocal lines simultaneously. Each of these lines takes place in an input space, and we understand the resultant recording within a blended space. In this sense, the reason we find these effects so unremarkable (although they cannot be experienced without the aid of recorded media) is that we make such blends so very frequently

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[107]   Fauconnier, *Mappings*, p. 22.
[108]   'Mental spaces are small conceptual packets constructed as we think and talk, for purposes of local understanding and action'. Fauconnier and Turner, *The way we think*, p. 40.
[109]   Fauconnier and Turner, *The way we think*, p. 47.
[110]   Fauconnier and Turner, *The way we think*, p. 122.
[111]   Fauconnier and Turner, *The way we think*, p. 124.

in our everyday lives. Thus, we readily create two or more 'Lennoxes', two or more 'Amoses' or 'Lakemans',[112] as we create six race-tracks, and superimpose them in blended mental spaces. Explanations of such phenomena have, of course, been offered, particularly in relation to Bakhtinian double-voicing (de-constructing the idea that an individual's subjectivity is embedded in their physical voice), but such explanations do not address why their very presence passes uncommented, and has done so ever since Les Paul began experimenting with double-tracking in the early 1950s. This may seem like a laborious explanation for such common features of recordings. However, their commonality should not deafen us to their impossibility outside the virtual space created in the recording, and it is because we create such blended spaces all the time in our understandings of aspects of the world we encounter, that these devices appear inevitable, 'natural'.

So, what the larger part of this chapter has undertaken is to suggest that an explanation that follows the assumptions of ecological perception and relevant findings from embodied cognition is at least adequate to a discussion of iconicity and indexicality; indeed, in its refusal of an arbitrary basis to such meanings, I find it preferable. I have elsewhere undertaken an exhaustive study of the Kinks' 'See my friend', endeavouring to demonstrate the greater explanatory power that an ecological approach offers over a semiotic one.[113] However, if a semiotic approach via iconicity and indexicality is preferred, that does not negate the force of my interpretations here. My necessary assumption is that my approach will act congruently for readers, insofar as I am a normal listener. This perspective makes sense of the realist position I have adopted thus far, and provides it with a firm theoretical underpinning. But it is important to note that in this perspective, in Clarke's, in Tagg's, in Johnson's, one-to-one correspondences are being observed between musical details and life experience. In the case of the ecological explanation, this is overt, since such experiences are by definition the matter of our experiential reality. If invariants specify sources, they are not inventions of fantasy: as Cornelia Fales, says, 'the inclination to hear sources in sound constitutes a perceptual schema',[114] before arguing that in ambient music, such an inclination is overriden. And it can only be overridden because it is there in the first place.

To conclude, I return to a further point that originates with both Johnson and Turner, that there is no perspectiveless position from which to develop an understanding (of anything). This aspect has remained implicit in what I have written so far – in the next and final chapters it becomes more central.

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[112]   Lakemen?
[113]   Moore, 'Interpretation: So what?'
[114]   Cornelia Fales, 'Short-circuiting perceptual systems: timbre in ambient and techno music' in Paul D. Greene and Thomas Porcello (eds.), *Wired for sound* (Hanover NH, 2004), p. 165.