RHYTHM AND TEMPORALITY: A PHENOMENOLOGICAL EXAMINATION OF MUSIC PERFORMANCE



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Abstract

This thesis applies a phenomenological approach to music performance. Drawing on Christopher Hasty's interpretation of musical metre as 'projection', I examine the constitutive basis for the shared sense of time that underpins ensemble performance. The research considers a musician's sensitivity to pulse and tempo and the capacity to time instrumental actions. I argue that a performer's relationship with musical time can be meaningfully articulated in the terms of Edmund Husserl's structure of internal time-consciousness. The aims of the thesis are achieved by bringing together musicological and phenomenological perspectives and through conducting two phenomenologically-informed studies of the experience of music performance. A preliminary study involves a self-reflective examination of the performance of an instrumental skill. In the primary study, I undertake and analyse interviews with nine working musicians who perform in contemporary popular music. My principal findings are that musicianship requires an autonomous sense of musical pulse, that the determination and maintenance of tempo is best served through a bodily awareness of time and that the performance of rhythm involves the articulation of cyclic patterns of 'horizontal' and 'vertical' movement. Further, the intersubjective performance of groove involves an empathic awareness characterised by an experiential sense of 'connecting', or 'locking-in'. An unanticipated finding is that a critical ability is to maintain an appropriate and focussed awareness within a complex and dynamic situation. I conclude that from a phenomenological perspective: Hasty's projection of metre is founded in time-constitution; the instrumental expression of rhythm arises through a temporalising, bodily consciousness, and is structured through the ongoing projection of a metric framework; the ability of a musician to act in synchrony with others is founded in a

co-projection of metre within a co-constitution of ‘world-time’; and to focus attention is to modulate the anticipative sense of an unfolding activity.

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PART ONE: RESEARCH PLATFORM

In Part One, I set out the broader context and motivations for the thesis. I identify the theoretical positions, assumptions and understandings concerning the structures of subjective experience and the temporal modalities of music that inform and orientate the research process. I also consider in detail contemporary accounts of musical experience and music performance. I take the view that these perspectives can be developed further by drawing upon Edmund Husserl's structure of internal time-consciousness. To this end, I formulate an initial position, where I argue that Christopher Hasty's projection of metre is a constitutive process that is ultimately founded in the time-constitutive processes as described by Husserl.

Chapter 1: Time, Music and Phenomenology

> [Music is]... this uniquely compelling phenomenon whose structure seems to conform in some instinctively appreciated way to the very current of one's own living experience. The "continuous melody of our inner life" as Bergson called it, seems to be incarnated in music. Heinrich Schenker writes: "In its linear progressions and comparable tonal events, music mirrors the human soul in all its metamorphoses and moods." One finds, as it were, deployed in the sounding of tone and melody the very movement of one's living consciousness; experiencing music is experiencing the patterning of experiencing itself.[1]

> The paradox in drumming is that the first elementary lesson is at the same moment the most advanced lesson. The beginning and end of a drummer's career is a study in time.[2]

Time is something of an enigma; that which we might know, but find difficult to explain:[3] ubiquitous yet paradoxical, nothing material nor concrete can exist outside of time. Our experience of the world, our thoughts, perceptions, actions, imaginations and rememberings, all takes place within the passage of time. To speak of time is to talk of 'past', 'present' and 'future', but also of 'before' and 'after', implying a certain duality of time; of subjectivity and the objective world.[4] The present as the familiar 'now' poses a paradox of its own; as Aristotle recognises when he asks and responds, 'does it always remain one and the same, or is it always other and other? It is hard to say'.[5]

1.1: Themes and questions

Time is of fundamental significance to musical experience, particularly so to a musician in the immediacy of live performance. This is the case in two essential

1 Bruzina, 'There Is More to the Phenomenology of Time than Meets the Eye', 70.

2 Stanley Spector, original source unknown; cited in Hassell, *Thoughts-Concepts-Routines/Exercises*; page citations for this publication are unavailable.

3 To paraphrase Augustine's statement, '*Si nemo a me quaerat, scio, si quaerenti explicare velim, nescio*', *The Confessions of St. Augustine*, cited by Husserl, *The Phenomenology of Internal Time-Consciousness*, 21.

4 These are conceptually distinguished by John McTaggart as the A- and B-series, 'The Unreality of Time', 458.

5 Aristotle, 'Physics'.

respects: time is fundamental to music; time is fundamental to experience itself.[6] This thesis presents the construction and development of phenomenological perspectives on music performance, achieved through the application of a phenomenological understanding of *time-consciousness*. I develop this understanding of time-consciousness through reflecting upon the musician's experience of music performance.

Time is a theme that is central to both music performance and phenomenology. The significance of time to music performance is widely recognised. Music is intrinsically temporal. We might conceive of a musical piece as an object, but only so as an idea or abstraction, as music can only appear to us as (temporal) process. In this thesis, I assume the view that time is relevant to music performance in two key, interrelated respects. Firstly, music performance has a concern with time as *musical time*, the temporal modalities of music that we recognise as pulse, metre, rhythm, groove and expressive timing. Yet, the possibility of musical time presupposes a second, fundamental truth, namely that performance unfolds in time, and so is pre-delineated in a time-specific way. As Alfred Schütz observes, music (and by extension its performance) is constituted *polythetically*[7]—in the terms of contemporary phenomenology, when performed in a live setting music is *enacted*.[8] The concern in this thesis is with each of these temporal aspects of music performance.

The modalities of musical time are intersecting, structural and organisational principles within the flux of the performative process.[9] As an intrinsic, embedded

6 Gallagher and Zahavi, *The Phenomenological Mind*, 72.

7 By polythetic, Schütz means as a sequential, step-by-step process. ‘Fragments on the Phenomenology of Music’, 28–30.

8 See section 1.2

9 Andy Hamilton defines rhythm as ‘*order within movement or movement-in-sound*’ (emphasis in original), where metre is the organising principle. This is intended as an extension of Plato’s

aspect of the ongoing and purposeful production (enactment) of musical sound, musical time is itself enacted. Christopher Hasty argues that neither metre nor rhythm simply consist in marking-off moments within an 'empty container' of time. This is because musical time involves a punctuation, or pulsation, within the construction of movement and sound,[10] so that music performance involves the continual *accomplishment* of pulse, metre and rhythm; an observation that also applies to groove.[11] This thesis presents an investigation of the grounds of this accomplishment, the moment-by-moment negotiation of time and the enaction of rhythm, mediated by and through a conscious, bodily and intersubjective awareness. Musicianship requires an acute sensitivity to temporal passage, a sensitivity that informs the bodily capacity to time instrumental actions, while musicians must coordinate their actions with others in a precise and time-sensitive manner. What follows is also an interrogation of the sensitivity to musical time, and the question of how that sensitivity, and all that is founded upon it, is possible in principle. Put differently, I am taking Jeffrey Pressing's observation that '*musical rhythm originates from the evolved cognitive capacity to form and use predictive models of events*—specifically predictions of the timing of anticipated events',[12] and ask how the capacity to predict and time anticipated events is *constitutively* realised. By orientating the thesis around the question of constitution, I develop a phenomenological perspective of a musician's relationship with musical time.[13]

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definition of rhythm as 'order within movement', *Aesthetics and Music*, 128.

10 Ibid., 130.

11 Keil, 'The Theory of Participatory Discrepancies', 1.

12 'Black Atlantic Rhythm', 295, cited in London, *Hearing in Time*, 5; (emphasis in original).

13 For the purpose of this study, the kind of musician I am concerned with might be described as expert, although in the sense of having a long-standing experience of performance and a high and secure degree of musical and instrumental competence, as opposed to being an elite performer.

The observation that music unfolds in time has an elementary implication that I intend to engage with. Musicians must have an intentional hold (if only tacit) of the multiple dimensions of the unfolding performance situation. Performance demands an active engagement with musical sound, other musicians and audience, along with an attentiveness to the passing of time. This requires a high level of responsive and anticipative awareness, and is accomplished through the controlled, bodily manipulation of a musical instrument. It also calls for a continual attenuation of intentional awareness within a dynamic and fluctuating situation, specifically the constant shifting and focussing of attention between multiple salient concerns within the unfolding process. The constant movement of attention is one of the elements of music performance examined in this thesis from a phenomenological perspective.

The central theme of this thesis is the shared experience of the performance of rhythm amongst and between musicians. As such, it is primarily concerned with how musicians enact and coordinate instrumental actions within a shared temporal framework, and how they construct that requisite framework. The principal question is: how do we best account for and characterise the ability to coordinate (musical) instrumental actions within a shared temporal framework? I consider this question in relation to a phenomenon that occurs within ensemble performance: the sense of connection that takes place between musicians in the successful group performance of rhythm.

There are further correlated issues. The shared sense of time that is essential to ensemble performance presupposes a sensitivity to metric pulse, and by implication to temporal passage, so a crucial matter is how to interpret this sensitivity. A further question for this thesis is how do we best explain the ongoing perception of musical metre and pulse? Answering this question involves

consideration of the capacity to judge absolute and relative durations, along with ability (as Pressing remarks)[14] to predict the timing of anticipated events. A further matter is that music performance requires the ability to time actions in relation to the sense of pulse and/or metric framework. This is so in the respects of both a musician following a given sense of pulse, and actively stating it in and through bodily movement. In some manner we are able to connect a conscious sense of temporal passage with our motivated bodily movements. These considerations inform the third question for the thesis: how is it possible to perform rhythmic instrumental actions as a subjective, bodily agent? A further question connects these issues with the primary question. If we are able to answer the question of how a sense of pulse arises, and how that sense informs bodily instrumental actions, we are in a position to describe or explain how a temporal framework is enacted through an embodied subjectivity. To answer how musicians are able to synchronise their instrumental actions we must then consider the question: how does an enacted temporal framework come to be intersubjectively shared?

I approach these questions from a phenomenological perspective. This means that they are posed in relation to a musician's *experience* of musical time during the act of performance. The aim is to gain some insight into the underlying structure of subjectivity, rather than the particularity of subjective experience. The quality and nature of the concrete experience of music performance is not simply assumed, or extrapolated, from my own personal experience as a musician (although this experience does inform my approach to the research). Thus, a fifth and final question is: how do musicians understand and experience time, and the temporal musical phenomena of pulse, tempo, rhythm and groove? To answer this question I conduct interviews with musicians in order to elicit a sense of how they understand and

14 See above.

experience musical time.[15] Although my principal concern is with the internal structures of subjectivity, the accounts given by the participants do offer a rich sense of the 'drastic' in the sense intended by Carolyn Abbate. Noting that 'real music is music that exists in time',[16] Abbate argues that the musicological focus upon musical works and their meaning obscures the performative sense of the drastic, 'the irreversible experience of playing, singing or listening' to music.[17] To illustrate, she describes a personal experience of performing on stage:

> What, I asked, am I actually thinking about this music?... I realized that words connected to what was going on... had nothing to do with signification, being instead *doing this really fast is fun* or *here comes a big jump*... [D]uring the experience of real music... thoughts about what music signifies or about its formal features do not cross my mind.[18]

My specific interest is in the operative concerns of musicians playing 'real music', along with the patterning of awareness as attention shifts and focuses on the various elements of the performative situation. The interviewees' responses offer significant insights into the issues raised by the research questions, but also offer new ways of refining and reorienting the commonly-held understanding of those same issues.

1.2: Phenomenology and music

> The pantheon of art is not a timeless present that presents itself to a pure aesthetic consciousness, but the act of a mind and spirit that has collected and gathered itself historically. Our experience of the aesthetic too is a mode of self-understanding. Self-understanding always occurs through understanding something other than self, and includes the unity and integrity of the other. Since we meet the artwork in the world and encounter a world in the individual artwork, the work of art is not some alien universe to which we are magically transported for a time. Rather, we learn to understand ourselves in and through it,

15 I discuss this in Part Two.

16 Abbate, 'Music—Drastic or Gnostic?', 505.

17 Ibid.. Abbate takes her cue from Jankélévitch: 'composing music, playing it, and singing it; or even hearing it in recreating it—are these not three modes of doing, three attitudes that are drastic, not gnostic, not of the hermeneutic order of knowledge? Jankélévitch, *Music and the Ineffable*, 77.

18 Abbate, 'Music—Drastic or Gnostic?', 511, (emphasis in original).

> and this means that we sublate (aufheben) the discontinuity and atomism of isolated experiences in the continuity of our own existence.[19]

In comparison to studies in music analysis, along with perspectives of music offered by ethno-musicology, cognitive psychology, critical theory and analytic philosophy, specifically phenomenological interpretations of music are relatively rare. Nonetheless, substantial research into music and music performance has been framed from a phenomenological perspective, going back as far to a paper (1951) and a monograph (1976, posthumously) published by Schütz.[20] Phenomenological studies of music have surveyed both the classical tradition and contemporary popular music.[21] In the former, there has been consideration of the constitution of musical sound and the perception of musical structure,[22] the ethical implications of the subjective positioning of musical protagonists,[23] and the relationship between musical composition, performance and improvisation.[24] Studies of popular music have examined presence and meaning in the immersive experience of funk,[25] and the perception and understanding of groove.[26] A small number of phenomenological studies focus upon the performance of music, specifically the development of improvisational skills in the context of jazz music,[27] the experience and meaning of groove in jazz performance,[28] and the experience of 'deep absorption' (the loss of the sense of self) within the act of performance.[29] All of these studies offer significant

19 Gadamer, *Truth and Method*, 87–88.

20 Schütz, ‘Making Music Together’; Schütz, ‘Fragments on the Phenomenology of Music’.

21 By ‘popular music’ I mean forms and styles of music that originate within popular culture. See Callahan, *The Trouble with Music*, 23.

22 Clifton, ‘Music as Constituted Object’; Clifton, *Music as Heard*.

23 Nielsen, ‘Voice’.

24 Benson, *The Improvisation of Musical Dialogue*.

25 Danielsen, *Presence and Pleasure*.

26 Roholt, *Groove*; Danielsen, *Presence and Pleasure*.

27 Sudnow, *Ways of the Hand*.

28 Doffman, ‘Feeling the Groove’.

29 Høffding, ‘A Phenomenology of Expert Musicianship’. Judith Becker’s phenomenologically-informed, ethnomusicological study of (musical) trance is a study of an experience closely

insights into the experience of music. There are also philosophical, psychological and musicological studies of musical time. Of note is a conceptual analysis of musical time that focuses specifically upon rhythm,[30] a cognitive model of a performer's musical expectancies,[31] an analysis of the relationship between metre and rhythm that also offers a theoretical model of metric projection,[32] and applications of the concept of entrainment to music performance.[33] The treatment of a musician's experience of musical time in terms of a phenomenology of time-consciousness has not been undertaken. This thesis addresses this significant absence.

Why take a phenomenological approach to music performance? Music performance is an expressive, bodily act. To paraphrase Evan Thompson, what is given expression is the subjectivity of the performer.[34] Subjectivity has an intrinsic intersubjective dimension, in that individual expression is realised by means of interaction with and through others, is culturally and historically informed, and ultimately gives expression to a collective consciousness or identity. Following Gadamer (who opened this section), my view of artistic practice is that it is the expression of 'a way of being'. The concerns of this thesis are in important respects much narrower than those indicated by Gadamer, but they are motivated by the view that an understanding of ourselves can be mediated through music performance. In taking a phenomenological approach to music performance, my aim is to achieve a deeper, more nuanced sense of what it is for a musician, *as an experiencing subject*

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related to deep absorption, *Deep Listeners*.

30 Hamilton, 'Rhythm and Stasis'.

31 Huron, *Sweet Anticipation*.

32 Hasty, *Meter as Rhythm*.

33 See Clayton, Sager, and Will, 'In Time with the Music'; London, *Hearing in Time*.

34 'My body is an expressive being, and what it expresses is my subjectivity'. Thompson, *Mind in Life*, 246.

rather than as an objectively observed entity, to be caught in the immediacy of performance.

The majority of academic studies of music performance (and music perception) are oriented from either a subject-centred perspective (i.e., from the perspective of music practitioners—musicians, music tutors and music pedagogy),[35] or from empirical, naturalistic and analytic approaches (music psychology and philosophy of music).[36] The former has the intention of providing normative or evaluative accounts of various kinds of practice and preparation for performance. The latter provides objective formulations, descriptions and explanations of a musician's skills and capacities that are essentially framed within terms of an analysis of underlying biological causes and effects and/or internal cognitive structures. While subject-centred perspectives offer accounts that are intrinsically framed from, or in relation to, the perspective of a performing musician, they do not rely upon a specific theoretical framework. Naturalistic perspectives may offer a theoretical framework, but the emphasis upon providing an objective account of the phenomena in question consequently presupposes an, at best, impoverished understanding of the dimensions of subjectivity, consciousness, experience and meaning. To borrow from Dan Zahavi, phenomenology offers the possibility of a theoretical account of the performance of music that retains and seeks to do justice to the perspective of the musician considered as an experiencing subject.[37]

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35 See, for example, Grindea, *Tensions in the Performance of Music*; Dunsby, *Performing Music: Shared Concerns*; Rink, *Musical Performance*; Stein, *Form and Performance*.; Westney, *The Perfect Wrong Note*; Green and Gallwey, *The Inner Game of Music*; Hassell, *Thoughts-Concepts-Routines/Exercises*.

36 For example, Sloboda, *Exploring the Musical Mind*; Fabian, Timmers, and Schubert, *Expressiveness in Music Performance*; Clarke, 'Understanding the Psychology of Performance'.

37 '[G]enerally speaking a phenomenological account of perception and action is an attempt to do justice to the first-person perspective, it seeks to understand the experience in terms of the meaning it has for the subject'. Zahavi, 'Naturalized Phenomenology', 8.

My own personal motivations for undertaking a phenomenological study of music performance stem from a long-standing interest in philosophy of mind. This research is influenced by Hubert Dreyfus' *What Computers Can't Do: The Limits of Artificial Intelligence* (1979), in which Dreyfus presents a challenge to the claims of artificial intelligence and cognitive psychology. Dreyfus also offers a more wide ranging critique of empirical and intellectualist perspectives that is motivated and informed by the work of the phenomenologists Edmund Husserl, Martin Heidegger, Jean-Paul Sartre and Maurice Merleau-Ponty, along with the philosophical insights of Ludwig Wittgenstein.[38] Further, I have a long-standing pastime as a music performer. The two interests in music performance and phenomenology coincided when I studied for a Master of Arts in Music Performance at Salford University.[39] This thesis is not a study in, and nor is it primarily based on, or informed by, musical analysis to any significant extent. Strictly speaking, neither is it an ethnomusicological study, although I do engage with practising musicians who operate within a circumscribed cultural *milieu* in which I have participated, and my research is informed by the work of Ingrid Monson and Paul Berliner.[40] Rather, this thesis is an extension of my initial treatment of music performance from a phenomenological perspective, where the focus is now directed towards the temporal modalities of music.

Following Andrew Bowie and Nanette Nielsen, I take the view that the relationship between music performance and phenomenology (or more generally, music and philosophy) involves a two-way communication. Bowie argues that music has the capacity to show that which cannot be said, as music 'is intelligible in ways

38 Although Dreyfus often takes a more critical stance towards some of the ideas of Husserl.

39 See Boast, ‘The Musical Body’.

40 Monson, *Saying Something*; Berliner, *Thinking in Jazz*.

that cannot be verbally articulated'.[41] To assume that a philosophy of music merely amounts to an interpretation of music from the perspective of a particular philosophical position is to lose sight of what music has to offer to a philosophical understanding.[42] My view is that philosophy offers insights into musical practice, but also that musical and phenomenological perspectives can offer insights to one another. This implies interpreting music performance and the experience of rhythm within a phenomenological framework; that is, elucidating how underlying experiential structures are implicated in the (shared) enactment of rhythm. It also implies consideration of what the experience of rhythm can disclose to us concerning those same underlying structures.

The approach taken in this thesis has been greatly influenced by the work of Husserl and Merleau-Ponty. I have leaned towards formulating a constitutive rather than existential or hermeneutic interpretation of music performance. Consequently, Heidegger does not feature prominently, although his considerable influence upon the ideas of Merleau-Ponty is to be acknowledged. I have also drawn upon contemporary thinking in phenomenology, particularly Dan Zahavi, Shaun Gallagher and James Mensch; and also, but to a lesser extent, Lanei Rodemeyer, Maxine Sheets-Johnstone, Richard Shusterman, Komarine Romdenh-Romluc, Marek Pokropski, Don Ihde, Hubert Dreyfus and Evan Thompson. Zahavi articulates certain key assumptions and observations that characterise the phenomenological perspective. Phenomenology has been described as a philosophy of the subject, and a central claim is that conscious experience exhibits internal and essential structures and processes.[43] In particular, *subjectivity* is described as an intrinsic structural

41 Bowie, *Music, Philosophy, and Modernity*, 271. Bowie's remark is made in the context of identifying an important concern for Wittgenstein. See also Nielsen, 'Voice', 117.

42 Bowie, *Music, Philosophy, and Modernity*, 10–11.

43 See Zahavi, *Subjectivity and Selfhood*, chap. 5.

feature of experience; as Zahavi states, 'experiences are characterized by a first-personal givenness that immediately reveals them as one's own'.[44] This intrinsic dimension of experience is termed a pure, or transcendental subjectivity, and might be considered the constitutive basis for a mundane or personal self,[45] which is to say an *intersubjective* self that is *embodied* and culturally, historically and socially *situated*. The concern is not merely, or even principally, with the structure of subjectivity. As the notion of an embodied and situated self implies, subjectivity necessarily entails world-hood, in particular, a relationality between self and the world;[46] that is, we find ourselves situated within a *lifeworld*, the world of daily life we take for granted and share with others and the dimension where we empathically encounter others. Significantly, we encounter a *morphological* lifeworld; which is to say that it appears as structured, yet in neither a random nor precisely given manner.[47]

Phenomenology looks to articulate the *constitutive* processes that bring a world to the givenness of conscious awareness. Accordingly, the central theme of phenomenology is *intentionality*, the relationality between subjectivity and the world that is expressed by the fact that consciousness is always a consciousness-of, the intentional act (or noesis) of being directed towards an intentional object, be it an idea, a concrete object or state of affairs.[48] Further, the world and its objects are constituted as having an intentional content (or noema), which is to say they are intended as *meaningful*. As Husserl says of consciousness, 'it is its essential nature to conceal "meaning" within itself, the quintessence of "soul", so to speak, of "mind", of

44 Ibid., 124.
45 Zahavi, *Husserl's Phenomenology*, 48–49.
46 Ibid., 75.
47 Ibid., 130–131.
48 Ibid., 13–14.

"reason"'.[49] Consequently, meaning arises at a primordial (pre-linguistic) level, through the relationality between subject and world. Intentionality is also directed towards other subjects, as an empathic (other-directed) awareness. A closely related position is that subjectivity is intrinsically *intersubjective*; as Zahavi remarks, 'the transcendental subject can only constitute an objective world if it is... *socialised'*.[50] Finally, subjectivity is *temporally* structured. As mentioned above, experience is necessarily constituted as temporal passage, as taking place in time. Indeed, for both Husserl and Merleau-Ponty, in a fundamental sense subjectivity *is* temporality. These formulations of subjectivity and the intentional consciousness are now well established within contemporary phenomenology,[51] and this thesis proceeds on the assumption of their validity. In particular, I draw heavily upon Husserl's ideas concerning time-consciousness, and furthermore do so upon the supposition that subjectivity is essentially embodied and intersubjective. Nonetheless, some clarifications may be helpful.

In respect of the modes of intentional awareness, a certain ambivalence exists concerning the relationship between cognition and perception. Early researchers in cognitive science take the view that 'the word *cognitive* refers to perceiving and knowing',[52] a position supported by the *Chambers Dictionary* (2008) definition, 'the act or process of knowing, in the widest sense, including sensation, perception, etc., distinguished from emotion and conation'.[53] Perception is accordingly a specific form of cognition, distinct from reason, recollection or intuition, where cognition itself amounts to an encompassing term for intentional awareness. By contrast, in outlining

49 Husserl, *Ideas*, 178.

50 Zahavi, *Husserl's Phenomenology*, 75, (emphasis in original).

51 Although there remains considerable debate on many fundamental concerns and details.

52 Stillings, 'What Is Cognitive Science?', 1, (emphasis in original).

53 *The Chambers Dictionary*, 306.

the enactive perspective, Thompson identifies cognition as a higher level of intuitive or intellectual understanding, a 'know-how' that presupposes perceptual and motoric capacities.[54] In this thesis, I follow Thompson's implication that perception is distinct from cognition, functioning at a more primordial level of constitution, although reiteratively influenced and shaped by cognitive understanding. Interpreted this way, cognition is founded upon the reflective capacities of consciousness.[55] A further implication is that *awareness* becomes the encompassing term, so that we can, for example, speak of and distinguish between cognitive and perceptual awareness.

In phenomenological terms, the relationship between attention and awareness is best illustrated by Husserl's conception of the horizonal structure of awareness, where awareness is understood as field-like structure, and attention as a critical and central component of this structure. To take the example of visual perception, we can talk of a 'visual field' that exhibits a structure of 'focus', 'fringe' and 'horizon' (see figure 1.1). The focus is the centred point of awareness, so that to direct attention towards a specific entity is to place it at the centre of the visual field: the field stands in relation to the focal area as its periphery or background: at the limit is the third structural element, which is referred to as the horizon.[56] The idea is that various shadings of perceptual awareness will span a spectrum from focussed attention, through a more indeterminate perceptual fringe that is peripheral to this centred focus and eventually towards a horizonal limit. Ihde remarks that 'beyond the "edge" of the visual edge *nothing* is given as present, the "beyond" of the horizon is an *absence*, or emptiness'.[57] Yet, a tacit sense of what lies within this absence remains, and the elements that reside there still inform the perception of whatever holds the focus of

54 See below, p.21.

55 See below, p.16.

56 Ihde, *Listening and Voice*, 37–40.

57 Ibid., 39, (emphasis in original).

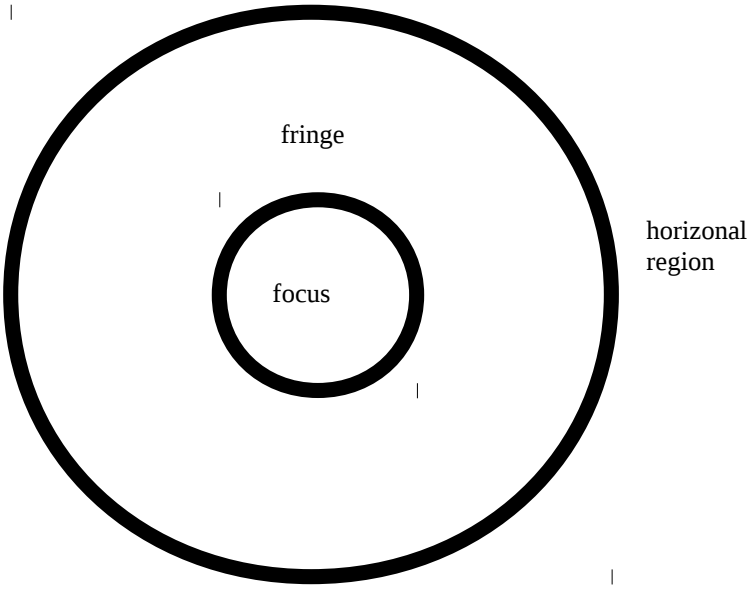


Figure 1.1: Schematic depiction of the horizonal structure of awareness.
Reproduced and adapted with permission from Don Ihde, Listening and Voice, 39.

visual attention. For example, when sat in a room we cannot directly see what lies behind us, although we take it as given that the unseen part of the room remains present.[58] In phenomenological terms, the object of attention is given along with its ‘appresentational horizons'. Husserlian phenomenology takes the view that all the modalities of conscious awareness—be they perceptual, cognitive, conceptual, or whatever—exhibit this ‘horizonal structure’.[59]

From a phenomenological perspective, *reflection* functions as a thematising and objectifying modification of pre-reflectively lived experience: as such, reflection is itself the principal methodological tool of phenomenological enquiry,[60] and also a specific instance of that act of directing attention. For Husserl, reflection is 'founded in a *twofold* sense'. In the first respect, reflection involves the directing of attention towards what is pre-reflectively given, even if only as peripheral to our awareness. Although we may reflect upon our prior reflections, ultimately reflection is founded

58 See ibid., 106–107.
59 Ibid., 42.
60 Husserl, *Ideas*, 149, 152; Zahavi, *Husserl’s Phenomenology*, 88–89.

upon experiences that are 'given in an implicit and prereflective manner'.[61] Second, reflection itself 'relies upon a prior, tacit self-awareness', which is to say that it emerges from and through the underlying, passive performances of consciousness.[62] Much of the phenomenological discussion concerning reflection relates to the study of experience itself and the question of self-awareness. By contrast, reflection in the everyday sense may be directed towards happenings and entities in the world rather than our experience, *per se.* Nonetheless, reflection is ultimately aimed at our understanding and assumptions, informing our attempts to make sense of our experiences. Moreover, the idea that reflection serves to modify our experiences clearly extends to our bodily capacities, such as in music performance, where the ability to focus attention upon the details and intricacies of bodily movement is essential to the development of instrumental skills.[63]

The orientation of this thesis is essentially Husserlian, particularly in relation to the issue of time-consciousness, although given Husserl's status as the founder of the discipline, in certain respects this is true of any contemporary phenomenological work. Zahavi acknowledges the heterogeneous character of phenomenological perspectives, but also draws attention to the threads of continuity that serve to unify them, even where these may appear to radically depart from Husserl.[64] A view exists that these departures—particularly in the cases of Heidegger and Merleau-Ponty, where emphasis is respectively placed upon intersubjectivity, embodiment and the situatedness of the subject within a world—amount to a repudiation of a mind-centred approach to consciousness that is clearly evident in the work published within Husserl's lifetime. However, Zahavi challenges the assumption that Husserl

61 Zahavi, *Husserl's Phenomenology*, 88.

62 Ibid., (emphasis in original).

63 See section 2.4.2.

64 See Zahavi, 'Phenomenology', 661–662.

remained committed to this perspective, and has argued that Husserl continually developed his theoretical framework, culminating in his latter career with his mature formulations of the embodied and intersubjective dimensions of consciousness.[65] On the question of embodiment, Husserl's more developed position appears primarily in his posthumously edited and published *Ideas II* (1989).

Husserl recognises an essential truth of Cartesian dualism that mind and body —or better, consciousness and matter—are categorically distinct: whatever falls under the general category of consciousness—for example, subjectivity, experience, meaning, awareness, intentionality, perception, egoic acts, and so forth—cannot be reduced to the terms of natural science. All the same, Husserl also recognises an intrinsic interrelatedness between the two categories, as evident in his description of the body as a 'psychophysical unity' that is both living organism and subjectively lived.[66] In particular, Husserl describes the body as the locus of perceptual givenness, and so as essential to world-constitution. Husserl's recognition of this interrelationship is taken up by Merleau-Ponty in *The Phenomenology of Perception* (1962, 2012).[67] Merleau-Ponty develops Husserl's formulation of the subjectively lived body to suggest that the *body is a form of consciousness*, so emphasising the bodily character of our intentional awareness of the world, particularly in our pragmatic engagements, and the role of the body in the constitution of situated meaning. In Part Three, I adopt and explore Merleau-Ponty's conception of a bodily consciousness and its inherent temporality, specifically in relation to the bodily performance of rhythm and the shared sense of musical time.

65 Ibid., 662.

66 Husserl, *Ideas II*, 140. See also page 49.

67 Merleau-Ponty was granted access to the manuscripts that were eventually edited and published as *Ideas II*.

Husserl originally considered phenomenology as foundational, a means of grounding and validating the truths of everyday life and natural science.[68] Yet, in his later years he also saw phenomenology as countering the claim that human life and activity can be exhaustively explained in the terms of natural science, and the dangers such an 'objectivism', or 'scientism', entails.[69] This points to an issue concerning the relationship between phenomenology and natural science. Phenomenology is distinguished from natural science through its emphasis upon subjectivity and subjective experience. More significantly, phenomenology does not treat subjectivity as a certain (perhaps unique) kind of object, but as a '*transcendental* dimension of consciousness'.[70] Consequently, as remarked, from a phenomenological perspective the structures and processes of consciousness are irreducible, and cannot be explained purely in terms of material causation and physical processes: the logic of everyday behaviour cannot be captured in terms of physical stimuli and physiological processes, nor in terms of the processing of symbolic data.[71] Rather, the intelligibility of our actions and choices is accounted for by the nexus of meanings that a subject attributes to a given situation. Nonetheless, in more recent times there have been significant attempts to reconcile the positions of these disciplines under the guise of a 'naturalized phenomenology'.[72]

Zahavi is an advocate for the possibility of a naturalised phenomenology, but warns that some care should be taken to clarify what this might imply. From a phenomenological perspective it remains the case that it is not viable to suppose that

68 Husserl, *Ideas*, 45–47.

69 Gallagher and Zahavi, *The Phenomenological Mind*, 89; Zahavi, *Husserl's Phenomenology*, 126.

70 Zahavi, 'Naturalized Phenomenology', 5, (emphasis in original).

71 See Dreyfus, *What Computers Can't Do*, 225–227.

72 Zahavi, 'Naturalized Phenomenology'. See also Gallagher and Zahavi, *The Phenomenological Mind*, 28–41; Gallagher, *Phenomenology*, chap. 2.

the categories of experience are reducible to the terms of natural science.[73] Yet Zahavi acknowledges the possibility of an informed dialogue between the two, where each may incorporate insights of the other, and moreover may strive to be consistent in terms of their respective findings and theorising. Zahavi also allows for the possibility of an interchange between phenomenology and natural science that might result in a radical reformulation of basic concepts. He argues that the 'real challenge would... be to rethink the very concept of nature'.[74] That is, 'we should realize that it is mandatory to operate with a richer notion of nature, one that has room for such issues as meaning, context, perspectives, affordances and cultural sediments'.[75] This thesis does not primarily offer a naturalised phenomenology of a musician's experience, as it is not my goal to reconcile phenomenology with natural science. The work presented here is intended as a phenomenology of music performance and musical time, although I believe it is in keeping with the spirit of Zahavi's proposals. Nevertheless, in Chapter 2 I review a proposal for a naturalised phenomenology of musical interaction that aims to characterise the experience of groove.[76] The attempt falls short in respect of the ambition for a naturalised phenomenology, and I suggest this might be achieved by incorporating a phenomenological understanding of time. This approach offers the possibility of a viable naturalised phenomenology of musical interaction, in which a richer concept of entrainment might be developed. This is particularly so in view of Zahavi's remark, following Michel Foucault, that '[w]hen transcendental subjectivity is placed in the more fundamental dimension of time, the strict division between the transcendental and the empirical is compromised':[77] it is *time*, and *time-consciousness,* that offers the best prospect for a

73 Zahavi, 'Naturalized Phenomenology', 4–7.

74 Ibid., 15.

75 Ibid.

76 Doffman, 'Feeling the Groove'.

77 Zahavi, 'Naturalized Phenomenology', 16.

cross-fertilisation of the conceptual and perceptual perspectives of phenomenology and natural science.

A theoretical position that informs my approach, and which is an example of a naturalised phenomenology, is enactive phenomenology. The term 'enaction' connotes the sense of perception and action as a continual 'bringing forth' of the world by consciousness: Francisco Varela summarises the idea of enaction as 'laying down a path in walking'.[78] The path of life, or lived-experience, is not the product of a pre-determined biological program, but a trajectory that emerges through the continual interchange between living beings and the world: a subjects world is 'a relational domain enacted or brought forth by... [the subject's] autonomous agency and mode of coupling with the environment'.[79] In part, the idea is that 'cognition is the exercise of skilled know-how in situated and embodied action', where this know-how emerges 'from recurrent sensorimotor patterns of perception and action'.[80] Enactive phenomenology takes its cue from Merleau-Ponty's development of ideas that were first formulated by Husserl,[81] in particular the concept of 'operative intentionality'. According to Gallagher, 'operative intentionality attempts to capture the fact that the experiencing agent is intentionally engaged with the world through actions and projects that... involve what Husserl calls "bodily intentionality"'.[82] Thus, actions are intentional 'in the sense that they are directed at some goal or project'.[83] Music performance is a case of such goal directed action, and in this thesis I aim to

78 Varela, 'Laying down a Path in Walking', 63; cited by Thompson, *Mind in Life*, 13; See also Gallagher, *Phenomenology*, 72–80.

79 Thompson, *Mind in Life*, 13.

80 Ibid.

81 Gallagher, *Phenomenology*, 72.

82 Ibid.

83 Ibid.

clarify an essential aspect of operative intentionality (in the context of music performance) and draw out its relationship with time-consciousness.

1.3: Musical time: pulse, metre, rhythm and groove

A central concern of the thesis is a musician's experience and understanding of musical time. In using the expression 'musical time', I am referring to the specifically temporal modalities of music, which conversely might be seen as the musical modalities of time. Put another way, musical time relates to the specific modes in which time is articulated within music. The meanings of the terms are intuitively clear as aspects of a shared, cultural practice and interdependent temporal phenomenon, although a survey of the literature indicates conceptual and semantic complexities, along with certain conflicting understandings of how the terms are used. Some of the modalities are treated formally, as for example, 'pulse', 'beat', ‘tactus’, 'metre', 'rhythm', 'hyper-metre', 'metric subdivision' and 'tempo'. Informal conceptions of musical time relate to expressive phenomena, such as 'groove', 'rock' and 'swing', while 'rhythm', and 'time' itself, also have certain informal musical connotations. Certain terms refer to the manipulation of these modalities, for instance, *ritardando* and *accelerando*, as do expressions such as playing 'behind', 'ahead of' or 'on the beat'. Music notation is intrinsically temporal, so that note values, denoted, for instance, by 'crotchet', 'quaver' and 'triplet', are all indications of temporal duration relative to the metric pulse. These and related terms might all fall under a general heading of 'musical time'. The expression has also been deployed more expansively, to speak of the effect music can have on the experience of time, such as the loss of the sense of time, the sense of time as 'eternal', or again of being

immersed within the 'flow of time'.[84] Although these types of experiences are pertinent to the musician's experience of time, my concern is with the more elementary articulations of musical time, specifically the modalities of (metric) pulse, tempo, rhythm and groove.

Of these modalities, the most basic is the pulse or tactus, which refers to 'regularly recurring articulations in the flow of musical time'.[85] The pulse is regular in the sense that the length of duration between each pulse typically remains constant, while undifferentiated in that each pulse is conceived as having the same dynamic emphasis, and so lacks accentuation. Not usually being sounded, the pulse is either imagined, or perhaps more commonly sensed as 'felt' in some way, as a tacit and invariant feature of an audible musical pattern.[86] Pulse is the basic unit of metrical structure,[87] which incorporates a regularly recurring accentuated pulse. Metre functions as a structuring temporal framework, so subtending the execution of rhythm.[88] Pulse can itself be subdivided, while metre is typically grouped and embedded into an encompassing hyper-metric structure that relates to extended musical passages such as a melodic line.[89] The organisation of the pulse, as a specified metrical unit, into accentuated metrical groups identifies the time signature of the metre. As a grouping of the pulse, metre may coincide with an audible pattern of sounded notes but is not itself sounded.

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84 See Barry, *Musical Time*, chap. 1. Barry identifies musical time with the ‘interaction of the formal properties of the musical work and the responsive part played by the listener in the perception of time’, 12.

85 London, ‘Pulse’. London notes that ‘tactus’ is ‘often used interchangeably with either “beat” or “pulse”, but historically “tactus” has a somewhat different meaning’.

86 London, *Hearing in Time*, 24.

87 London, ‘Pulse’.

88 London, *Hearing in Time*, 3–4.

89 London, ‘Metre’.

As Justin London notes, 'pulse' is often identified with 'beat'.[90] Similarly, Anne Danielsen identifies pulse and beat with the divisions within a metrical framework, and describes them as unsounded virtual figures that serve as a means of structuring and understanding sounded rhythmic gestures.[91] Conversely, following David Epstein, Jonathan Kramer suggests that it is useful to distinguish the two by defining pulse as the sounded counterpart of an unsounded beat. Thus, duration-less beats 'are time-points', whereas a pulse is a 'flexible' and 'rhythmic' sounded event that 'occur[s] at or near beats' and 'has a finite, though small, duration'.[92] It follows that beats are correlated with metric structure and are metrically accentuated, while pulse 'occurs *at* a time-point' and 'is susceptible to rhythmic accent'.[93] Kramer may be correct to suggest that a distinction along these lines is useful, yet a survey of the literature indicates that there is not yet a consensus about how one should be formulated. Hasty draws the same distinction but correlates beat with perceived duration and pulse with metrical notation.[94] Hamilton argues that the meanings of pulse and beat overlap: a metric system is a repetitive framework that depends upon pulsation (which by implication need not be sounded),[95] and the two are distinguished by the fact that 'beat has to be metric, but pulse does not'.[96] Kramer's remarks occur in the context of the classical tradition, while Danielsen is concerned with a specific style of contemporary popular music (funk), and Hamilton identifies a number of different interpretations of the terms in relation to a broad spectrum of musical styles. Clearly, the received understanding of the terms involves a measure of stipulation, along with a sensitivity to context. For the purpose of this thesis I

90 London, ‘Pulse’.
91 Danielsen, *Presence and Pleasure*, 44–48.
92 Kramer, *The Time of Music*, 97.
93 Ibid.
94 Hasty, *Meter as Rhythm*, 129.
95 Hamilton, *Aesthetics and Music*, 130.
96 Ibid., 135.

follow Hasty and assume that 'pulse' denotes a regularly recurring, unsounded event that structures rhythmic phrasing, and need not be metrical, and 'beat' to refer to a sounded, metrically ordered musical event. I do not identify pulse or beat as mere 'time-points' within objective time, but instead follow Hasty in regarding them as actively projected durational events within the subjective flow of time (I discuss this in Chapter 3).

Tempo refers to speed or pacing of a musical piece, and 'is intertwined with our sense of pulse and metre'.[97] Within the classical tradition, tempo may be indicated by 'conventionalised descriptions of speed and gestural character—*andante*, *allegro*, *langsam* etc.',[98] while for contemporary popular music it is simply given as 'slow', 'medium', 'medium-slow', and so on. Precise indications of tempo can be given as a rate or frequency of a metrical unit, as in '*x* beats per minute (bpm)' yet in practice these typically serve as approximations. Tempo is typically judged intuitively, with reference to a melodic line that may itself be encompassed within a broader temporal horizon. London remarks that 'a true sense of tempo... is a product of more than the successive note-to-note articulations; it involves the perception of motion within rhythmic groups and across entire phrases'.[99] The determination of tempo can have a marked effect on the performance and perception (including any evaluation) of a musical piece. Hamilton notes that 'the precise speed affects the feel greatly'.[100] In many instances it is considered important to ensure a piece is played at a 'correct' tempo, yet as London states, 'finding the “right” tempo... is one of the subtlest and most difficult tasks facing the performer'.[101] Conversely, being particular about tempo

97 London, ‘Tempo’.
98 Ibid.
99 Ibid.
100 Hamilton, *Aesthetics and Music*, 142.
101 London, ‘Tempo’.

is not always considered necessary. For example, jazz performance allows for considerable variations in tempo, where the principal constraint may simply be the effect of tempo on a soloists ability to improvise.[102]

If it is difficult to offer a precise and agreed understanding of pulse and metre, then the case of rhythm is even more equivocal. As London remarks, the meaning of the term is difficult to define.[103] This point is illustrated by Hasty, who identifies the attributes of rhythm to 'include continuity or flow, articulation, regularity, proportion, repetition, pattern, alluring form or shape, expressive gesture, animation and motion'.[104] In general terms rhythm can refer to any pattern of sounds or movement: we speak of the rhythm of the waves and tides of the oceans, of the sound of someone's footsteps or speech, of splashes emanating from a dripping tap and so on. As Hasty observes, we can even speak of the rhythm as expressed through the 'graceful swerve of a hand', so demonstrating that rhythm is not necessarily metrically formed motion.[105]

The majority of musics are pulse oriented in some respect. Correlatively, rhythm is the sounded temporal articulation of musical phrasing referenced against an implicit temporal grid.[106] Thus, rhythm may be characterised in more formal terms as a grouping of notes sounded within a metric framework.[107] As with metre, rhythmic groupings typically occur as a patterning of strong, accented and weaker, unaccented sounds.[108] Given the unlimited possibilities of rhythmic articulation, the potential complexity of rhythm is far greater than for pulse and metre. In

102 Berliner, *Thinking in Jazz*, 269–270.
103 London, 'Rhythm'.
104 Hasty, *Meter as Rhythm*, 3.
105 Ibid., 4.
106 London, 'Rhythm'.
107 Kramer, *The Time of Music*, 96.
108 Ibid.

contemporary popular music, rhythm is more typically understood as an ostinato pattern—a guitar riff, a repetitive beat played on the drum kit incorporating a 2-4 back-beat, or a broken bass line—that provides a backdrop for a melodic line that extends over a number of measures. In this sense, rhythm functions as an audible statement of metric pulse, while also serving as a signature for a particular style of music.[109] Although rhythm is for the most part phenomenally sounded, on occasions we might speak of rhythm as being implied. For example, in Cuban styles the use of a sounded rhythmic phrase is used to imply the direction of an unsounded clave pattern, which effectively functions as an irregular (syncopated) metre.[110] An alternative conception of rhythm is offered by Kramer, who notes that 'for some musical theorists, rhythm is the entire temporal life of the composition', and so 'sufficiently flexible to allow large scale form to be be primarily rhythmic'.[111] Thus, 'rhythm' may apply to both the large scale organisation of a musical piece, or the grouping of notes into a rhythmic motif. The common theme here is that rhythm refers to the metrically (or hyper-metrically) ordered pattern of musical phrasing—however long or short a pattern of notes might be. That is, rhythm simply is the temporal organisation of (musical) sounds within a metric framework.

As Hasty's list of attributes indicates, beyond this formal understanding rhythm is also recognised as both an implied, aesthetic value and sense of movement.[112] In part, this reflects the fact that rhythm involves dynamic phrasing and the manipulation of tone and texture. Hamilton develops his definition of rhythm as 'order-in-movement or movement-in-sound... [that] involves the imposition of accent... on a sequence of sound or movements... giving rise to a "feel" or pattern in

109 See, for example Monson, *Saying Something*, 195–197.

110 Hassell, *Thoughts-Concepts-Routines/Exercises*.

111 Kramer, *The Time of Music*, 96.

112 Hasty, *Meter as Rhythm*, 3.

which performers and listeners participate'.[113] Through its association with movement, rhythm acquires a sense of 'something ineffable that can only be experienced',[114] implying an organic sense of freedom. This sense of rhythm as an animated quality is recognised in the context of jazz, where 'effective improvisations are "natural, flowing, uncontrived and spontaneous"; they display strong rhythmic momentum, "rhythmic elasticity, bounce and vitality"'.[115] Similarly, rhythm can be imagined as a wave that a musician might ride, a pulsating flow 'that frames and integrates the remaining musical elements'.[116] Rhythm, then, exhibits a dual character, a 'bifurcation' between lawfully ordered sound and a spontaneous, vital freedom,[117] where the word rhythm 'holds these meanings together in a complex union'.[118] As Danielsen remarks, '[r]hythm happens, so to speak, in the midst of actual sound and non-sounding virtual structures of reference', so that the freedom and spontaneity of rhythm in music is almost always expressed from within the constraints of a metrical framework.[119]

The metrical organisation of rhythm indicates that, although conceptually distinct, a strong interdependence holds between rhythm and metre.[120] A degree of this interdependence is revealed in studies by Eric Clarke, where musicians were asked to play an identical rhythmic structure in different metric contexts. Clarke finds a strong correlation between metric accent and note length, along with other

113 Hamilton, *Aesthetics and Music*, 129. See footnote 9, page 3.

114 Hasty, *Meter as Rhythm*, 4.

115 Berliner, *Thinking in Jazz*, 147.

116 Monson, *Saying Something*, 27–28.

117 Hasty, *Meter as Rhythm*, 4.

118 Ibid.

119 Danielsen, *Presence and Pleasure*, 47.

120 Kramer, *The Time of Music*, 82; For an extensive review of the historical and contemporary treatment of the relationship between metre and rhythm, see Hasty, *Meter as Rhythm*, chaps 2–4.

correlations between metric position and performed nuance.[121] In contrast to pulse, some consensus exists that metre is the unsounded means of stating or tracking temporal passage, so providing the framework within which rhythm is organised. London describes rhythm as involving 'patterns of duration that are phenomenally present in the music' and 'the structure of the temporal stimulus'.[122] By contrast, metre is a structural invariant of a rhythmic patterning.[123] For Hasty, the opposition between metre and rhythm has become formalised in terms of the dichotomy inherent in rhythm. Typically, rhythm is valorised as sensuous and organic, while metre is consequently denigrated as the lawful and mechanical marking-off of clock-time.[124] As Kramer remarks, the identification of metre with mechanical regularity is limiting.[125] Hasty's formulation of metre as a process of projection is an attempt to rehabilitate metre, which he describes as the 'most purely temporal of music's components'.[126]

As with rhythm, the meaning of the modality of groove exhibits a certain duality. Groove may be treated as a formal feature of musical structure, as a composition of rhythmic parts. Yet typically, groove is understood more informally as musical effect. The attribution of groove occurs within the context of contemporary popular music, and might be seen as a counterpart to ‘expressive variation’ as understood in the classical tradition. Groove is identified with 'a

121 Clarke, ‘Structure and Expression in Rhythmic Performance’, cited in Kramer, *The Time of Music*, 82.

122 London, *Hearing in Time*, 4.

123 Ibid.. Curiously, London’s formulation clearly puts to one side the aesthetic, experiential sense of rhythm, and appears to invert the received correlations of metre and rhythm with an objective ‘clock time’ and the subjectively experienced flow of the passage of time.

124 Hasty, *Meter as Rhythm*, 4–5. Hasty’s treatment of the relationship between metre and rhythm is explored more fully in Chapter 3.

125 Kramer, *The Time of Music*, 99.

126 Hasty, *Meter as Rhythm*, 59.

persistently repeated pattern',[127] although in more precise terms it is recognised as a quality or phenomenon—a 'vital drive'—that arises through repetition and is primarily *felt*.[128] In many respects groove shares the aesthetic sense attributed to rhythm of flow, energy, vitality or animation. In particular, groove is strongly associated with a sense of movement—specifically, *bodily* movement—which as Roholt remarks, is commonly associated with the understanding of groove as a felt quality.[129] The experience of groove can go beyond an aestheticism of (bodily) movement to the transformation of ‘a whole state of being’.[130] Within the funk tradition, this ‘potentially meditative character of the groove’ has been cultivated ‘to the extreme, celebrating the idea of a transcendent musical experience’.[131] The nature of this experience is one where ‘[t]he relation of subject and object is almost suspended’, and is characterised by a sense of immediacy, ‘a presence in the here and now of the event’ as opposed to ‘consideration or reflection’.[132]

Groove is distinguished from rhythm by its specifically intersubjective character.[133] Mark Doffman, for example, states that '[g]roove can *only* exist as the relationship between two or more timings and how these are felt'.[134] Within the context of jazz, the accomplishment of groove 'unites the improvisational roles of the piano, bass, drums and soloist into a satisfying musical whole',[135] and 'depends especially on the rhythm section's precise coordination'.[136] Groove has been described

127 Kernfeld, ‘Groove’.
128 Keil, ‘Motion and Feeling through Music’, 341; Roholt, *Groove*, 2.
129 Roholt, *Groove*, 2.
130 Danielsen, *Presence and Pleasure*, 137.
131 Ibid.
132 Ibid., 144.
133 Doffman, ‘Feeling the Groove’, 13.
134 Ibid., 16.
135 Monson, *Saying Something*, 26.
136 Berliner, *Thinking in Jazz*, 349.

as a 'rhythm matrix',[137] or again a ‘fabric of rhythm’,[138] while Charles Keil argues that groove is a quality that arises through the interplay between the instrumental phrasings of the musicians within an ensemble.[139] Thus groove involves a 'negotiation of a shared sense of the beat',[140] or 'a rhythmic relation or feeling existing *between* two or more musical parts and/or individuals'.[141] One example of this relation is found in Keil's ‘processual discrepancies’, meaning the differences between respective timing patterns between musicians.[142] Brian Wesolowski argues for two types of processual discrepancies, which he describes as ‘horizontal’ and ‘vertical’. Horizontal discrepancies describe the relative (dis)placements of sounds within the metric envelope, the patterned distribution of varying timed discrepancies in the course of a single measure as measured against a virtual pulse. By contrast, vertical discrepancies refer to the degree of asynchrony that occurs between musicians who are performing together, so that they are playing ahead or behind of one another rather than the pulse.[143] Both Danielsen and Doffman examine groove in relation to the intersection of rhythm at the metric level, typically between a basic pulse-orientated rhythm and a syncopated or polyrhythmic counter-rhythm (which might also be considered as the expression of a contrasting pulse).[144] In the case of funk music, where the counter-rhythm is subordinated to the principal rhythm, the intersection between rhythmic gestures extends to an interaction with the virtual (unsounded), so that ‘the most interesting polyrhythmic relation… appears when a

137 Monson, *Saying Something*, 67.

138 Danielsen, *Presence and Pleasure*, 43.

139 Keil, ‘Motion and Feeling through Music’, 341–344; Keil, ‘Participatory Discrepancies and the Power of Music’; see also Berliner, *Thinking in Jazz*, 349–352; Monson, *Saying Something*, 26, 66–69.

140 Berliner, *Thinking in Jazz*, 349.

141 Monson, *Saying Something*, 68, (emphasis in original).

142 Keil, ‘Participatory Discrepancies and the Power of Music’, 275–278.

143 Wesolowski, ‘Timing Deviations in Jazz Performance’, 77.

144 See Doffman, ‘Feeling the Groove’, chap. 7; Danielsen, *Presence and Pleasure*, chap. 4.

layer of potential cross-rhythm is used to create small stretches in time that fall between a basic dominant pulse and hint at its virtual alternative'.[145] That is, the phenomenon of groove arises through an interplay between intersecting rhythmic structures and the nuanced (and deliberate) recurring displacements from the pulse at the micro-level.

The intersubjective nature of groove extends to its affective dimension. The achievement of groove correlates with a feeling of emotional empathy,[146] 'a euphoria that comes from playing good time *with* somebody',[147] and also one that invites participation, where 'everyone is creating socially'.[148] Similarly, Danielsen describes funk as a way of being, one that 'may engender an intense, almost euphoric feeling'.[149] This feeling is associated with Keil's participatory mode as an immersive experience, where 'you are "at one" with the entire universe'.[150] The association of groove with feeling 'underscores the emotional and interpersonal character of groove —something negotiated between musicians that is larger than themselves'.[151] Groove also implies an ongoing sense of dynamic equilibrium between musicians that needs to be continually maintained: as one of Berliner's respondents states, groove 'connotes stability, intensity and swing'.[152] Yet the sense of stability is also in a certain sense passively maintained: Monson observes that 'once established there is something inexorable about groove', a trance-like sense that the 'instrument is playing itself'.[153]

145 Danielsen, *Presence and Pleasure*, 71.
146 Berliner, *Thinking in Jazz*, 350.
147 Monson, *Saying Something*, 68.
148 Keil, 'The Theory of Participatory Discrepancies', 1.
149 Danielsen, *Presence and Pleasure*, 144.
150 Keil, 'Participatory Discrepancies and the Power of Music', 98, cited by Danielsen, *Presence and Pleasure*, 144.
151 Monson, *Saying Something*, 68.
152 Berliner, *Thinking in Jazz*, 349.
153 Monson, *Saying Something*, 68.

It might be argued that groove is not an exclusively intersubjective accomplishment, as to assume so discounts the possibility that a solo performance would also manifest groove.[154] One research participant suggests as much in a discussion concerning the intersubjective nature of groove, and Wesolowski's description of horizontal discrepancies would allow for this possibility while retaining the assumption that groove typically arises through the interplay of vertical discrepancies. My view is that the question is to a large degree a matter of stipulation. An unaccompanied performance might express all manner of rhythmic nuance, and be considered to groove or simply be rhythmic, depending on what our assumptions concerning groove involve. Again, an accompanied solo performance, such as a Jimi Hendrix guitar solo, could be said to groove by virtue of its own internal rhythmic shaping and dynamics. Nonetheless, the solo is performed within the context of an ensemble, and this has a considerable impact on both its performance and reception. Whether it could be said to groove or not, when considered in isolation, will depend on prior assumptions about what is essential to the constitution of groove. For the purpose of this thesis, I am following the stipulations of Keil, Monson and Doffman, and interpreting groove as an essentially intersubjective phenomenon.

To conclude, rhythm, metric pulse, tempo and groove are interrelated temporal modalities that have both structural and aesthetic significances. It should also be noted that to enact these modalities requires an acute temporal sensitivity. As Pressing indicates, to maintain a steady metric pulse at a consistent tempo requires the capacity to judge and anticipate temporal duration, while rhythm presupposes the ability to judge the relative durations of sounded events.[155] The ability of musicians

154 My thanks to Nicholas Baragwanath for this observation.

155 See page 4.

to temporally coordinate their instrumental actions,[156] and in particular to create the feeling of groove, also depends on these capacities, and brings in the additional requirement that they are alert to the temporal sensitivities of one another.

1.4: The thesis in outline

The thesis is divided into three parts. In Part One, I outline the theoretical perspectives that critically inform the research, and so provide the background and context for the thesis. In Chapter 2, I begin with a critical review of the concept of 'entrainment', and the related theory of 'dynamic attending' formulated by Mari Riess Jones. In contemporary musical studies entrainment and Jones' theory of dynamic attending have been drawn upon to explain the timing capacities of musicians. I argue that this approach employs an impoverished characterisation of attention that overlooks the internal structural complexities of subjectivity and subjective awareness. The remainder of Chapter 2 considers three contemporary and phenomenologically-oriented studies of music performance. Mark Doffman and Tiger Roholt are explicitly concerned with the phenomenon of groove, while Simon Høffding considers the experience of 'deep absorption'.[157] Doffman presents an empirical study of the timing profiles of jazz trios performing in a live setting, along with an analysis of interviews undertaken with his research participants. He argues that the concept of entrainment offers the possibility of a naturalised phenomenology. Roholt argues that groove arises through the affective dimension of motor-intentionality. His observations offer a promising basis for an understanding of the

156 In the academic literature, 'instrumental action' usually refers to any type of pragmatic, bodily behaviour; see Dickinson and Balleine, 'Motivational Control of Instrumental Action'. In this thesis, I use the expression to refer specifically to the bodily manipulation of a musical instrument.

157 Doffman, 'Feeling the Groove'; Roholt, *Groove*; Høffding, 'A Phenomenology of Expert Musicianship'.

performance of musical time as a subjective accomplishment. Høffding characterises skilled behaviour in relation to the passive dimension of consciousness and develops a concept that he describes as ‘musical passivity’. I take the view that Høffding's ideas offer a basis for an account of the movement of active attention within the course of music performance.

In Chapter 3, I present a phenomenological account of the capacity, referred to by Pressing, to perceive and judge absolute and relative durations.[158] My intention is to develop an explanation for this ability which draws upon Christopher Hasty's ideas concerning metric projection. Projection directly implicates conscious, intentional awareness, and I argue that Hasty is better served by Husserl's ideas on time-consciousness. A central concern for Husserl is with how events are experienced as being temporally coherent and cohesive, which relates to the fundamental truth that all experience (including that of music performance) unfolds in the course of time. The chapter concludes with a response to Justin London's critique of Hasty. London opposes entrainment and projection as mutually exclusive theoretical positions. My view is that entrainment offers an essentially naturalistic conception of temporal synergy, while metric projection is consistent with a phenomenologically-oriented characterisation of temporal awareness.

Part Two details the research methods and methodology, and presents the findings of the research process. In Chapter 4, I discuss the research methodology that has informed the approach taken in the thesis, and the methods that have been applied. The research consists in two case studies. The first is a preliminary study involving a self-reflective, phenomenologically-informed, examination and description of a basic instrumental skill. In the primary study I undertake and analyse

158 See page 4.

interviews with nine musicians. I outline the basic methodological principles of phenomenology that form the basis for both the research case studies (and already inform the phenomenological positions that are articulated in the Part One), and the subsequent theoretical analysis. I also review approaches that have appropriated and adapted the methodology of phenomenology, and that are known under the common heading of 'human science phenomenology'. My purpose is to make use of the more systematic procedures offered by human science phenomenology, where my intention is to gain insight into the underlying structure of subjectivity, rather than the particularity of subjective experience. In the latter part of the chapter, I introduce the musicians who have participated in the primary case study, and describe the research context and methods.

The outcomes of the analysis of the transcribed interviews are presented in the remainder of Part Two. The theme of Chapter 5 is the musician's experience of the unfolding process of performance. The chapter begins by presenting the findings of the preliminary study. The following sections present the themes that emerge from the primary case study—the interviews with the research participants. One unanticipated finding was a recurring emphasis upon the need to maintain an appropriate attentional *focus*, which might also be characterised as a psychological state of *being focussed.* This apparently essential capacity, one that hides in plain sight, is one of the themes that is taken up and examined in Part Three. In Chapter 6, the concern is with the question of how musicians understand and experience musical time and the temporal modalities of metric pulse, tempo, rhythm and groove**.** The modalities of tempo, rhythm and groove are considered in turn, each in relation to metric pulse. Each section identifies themes that have emerged from the analysis

of the transcribed interviews, and the chapter concludes with a summary of these themes.

In Part Three, the themes that have been identified through the analysis of interviews are considered in relation to the theoretical perspective of phenomenology. As explained, the overall purpose is to develop insights that advance both musicological and philosophical ambitions. Phenomenological insights are used to inform and explain the findings of the analysis, while conversely, the themes that have been identified are deployed with the intention of developing new phenomenological perspectives. Chapter 7 considers the operative intentionality of performance, in particular the active focussing of attention, and the bodily articulation of rhythm. In the course of the chapter I develop the phenomenological concept of an ‘intrinsic temporality' that is exhibited in bodily movement. I also examine the underlying interdependencies of subjectively motivated activity and the focussing and directing of attention within and towards temporal passage. The theme of Chapter 8 is the shared sense of temporal passage. From a Husserlian perspective, temporal awareness is an accomplishment of subjectivity. It is reasonable to ask how this accomplishment is intersubjectively harmonised: how is it that my sense of temporal passage coincides with that of other subjects? The issue presupposes another matter that is still debated in the literature, concerning how temporalisation can itself establish an empathic, intersubjective awareness.

As I have indicated, studies already exist of musical experience from a phenomenological perspective, of the listening and the creating of music. Moreover, Schütz, Thomas Clifton and Shawn Raja Akbar each discuss the experience of music in terms of Husserl's ideas on time-constitution; where Schütz outlines specific considerations in relation to music performance and Akbar identifies a relationship

between Husserl and Hasty. Nonetheless, as yet no detailed study has been undertaken of music performance with reference to Husserl's structure of internal time-consciousness. In many respects, this thesis can be seen as a fleshing out of Schütz's stipulations. The thesis also presents an innovative reappropriation of certain methods and techniques of human science phenomenology, which have been utilised as a means of organising, analysing and identifying themes that arise in the experience of music performance, from interview data gathered from a cohort of research participants. The research process has lead to four specific claims. The first is that from a phenomenological perspective, the perception of musical metre is best explained in terms of Hasty's theorisation of metric projection, and that this in turn is accounted for by the constitution of temporal awareness as described by Husserl. The second claim is that the intrinsic temporality of the body serves as the constitutive basis for the metrically ordered articulation of bodily movements. This intrinsic temporality also facilitates the capacity to time those movements. My third claim is that the performative concern with directing and focussing attention in an appropriate manner consists in modulating 'protention', a future-oriented time-constituting process. The final claim is that a shared sense of musical time co-originates as a co-projection of metrical pulse, which takes place within the framework of a co-constituted 'world-time'. As a corollary, taken together in conjunction with Jones' theory of dynamic attending, these claims provide a basis for a naturalised phenomenology of musical interaction.

Chapter 2: Entrainment, the Feeling of Groove and Deep Absorption

In this chapter I position the thesis in relation to contemporary studies of music performance. The intention is to review a range of theoretical perspectives, where a view on music performance and/or a musician's awareness and relationship with musical time is considered in terms of the underlying phenomenological structures of consciousness. The chapter begins with a critical review of the application of entrainment to a 'theory of dynamic attending', which has been employed in the context of music performance from cognitive and enactive perspectives. The subsequent sections consider three recent phenomenologically-oriented studies of music performance: the first two are explicitly concerned with phenomenon of 'groove', the latter with the experience of 'deep absorption'.

In section 2.1 I critically review the idea that a musician's sensitivity to time, the capacity to time actions, judge temporal duration, and synchronise actions with those of co-performers, might be explained in terms of a theory of dynamic attending that incorporates the concept of entrainment. I argue that entrainment is essentially a reductive principle that fails to capture the subjective dimension of temporal awareness, in particular the sense of temporal passage. Section 2.2 presents a review of a thesis produced by Mark Doffman,[1] in which he claims that in the context of jazz performance, groove can be theorised in terms of a naturalised phenomenology that aims to incorporate the intersubjective and embodied dimensions of experience.[2] Doffman's thesis has many merits, yet relies upon entrainment as a central theoretical principle. I argue that a naturalised phenomenology of musical interaction requires a

1 Doffman, 'Feeling the Groove', (2008).

2 Ibid., 295.

reformulation of the idea of entrainment. In section 2.3 I review a contrasting approach, in this case Tiger Roholt's 'phenomenology of rhythmic nuance' in which he argues that the feeling of groove is 'the affective dimension of motor-intentionality'.[3] For Roholt, groove arises through a particular, embodied, and actively exploratory mode of perceptual engagement with musical sound. Section 2.4 again discusses a phenomenology of music performance, in this case Simon Høffding's 'phenomenology of expert musicianship', in which he relates the experience of 'deep absorption' to the passive dimension of consciousness.[4] In section 2.5, I conclude that the positions reviewed offer a basis for a phenomenology of musical time, and that they can be developed by drawing upon a phenomenological understanding of time-consciousness.

2.1: Entrainment: a naturalised interpretation of the capacity to judge temporal duration

The concept of entrainment appears prominently in the literature concerning the production and perception of the temporal modes of music. It has been drawn upon to explain a number of a musician's capacities and/or aspects of musical engagement; to judge temporal duration (and thus tempo) and to anticipate the timing of upcoming events;[5] to temporally coordinate and structure instrumental actions;[6] and to synchronise timing behaviours with other musicians and external sources of musical sound.[7] Entrainment refers to the tendency of independent entities to enter into phase and/or periodic synchrony when loosely coupled.[8] The phenomenon was first noted

3 Roholt, *Groove*, (2014).
4 Høffding, 'A Phenomenology of Expert Musicianship', (2015).
5 Jones and Boltz, 'Dynamic Attending and Responses to Time', (1989).
6 Clayton, Sager, and Will, 'In Time with the Music', (2005).
7 Doffman, 'Feeling the Groove'; Keller, 'Ensemble Performance', (2014); Iyer, 'Microstructures of Feel, Macrostructures of Sound', (1998); Becker, *Deep Listeners*, (2004).
8 Clayton, Sager, and Will, 'In Time with the Music', 6.

by Christian Huygens in 1650, when observing the behaviour of pendulum clocks attached to the same supporting structure.[9] Much later, entrainment was taken up as a more general principle, following British physicist Lord Rayleigh's observation that organ pipes slightly out of frequency and in close proximity modulate towards sounding a common frequency.[10] The development of non-linear mathematics by Henri Poincaré, along with the subsequent emergence of chaos theory and the non-linear modelling of dynamic systems, has led to the adoption of entrainment as an explanatory concept in relation to a wide range of natural phenomena.[11] Initially, entrainment was recognised as a synchronisation between inorganic, material objects that arises through the mutual perturbation of their resonant properties. However, it has also been adopted within the disciplines of psychology and social sciences, to explain a wide range of behaviours of living organisms.[12] In particular, studies of social interaction between human beings have been undertaken that examine, for example, the rhythmic organisation of gesture and speech, or again the mimicking of posture and movement.[13] Thus, from describing an inorganic phenomenon, the concept has come to be extensively applied to the emergent behaviour of living organisms, and to human activity and social interaction.

2.1.1: The application of entrainment in the context of music performance

As Martin Clayton *et al* observe, given its seemingly wide applicability—particularly in relation to intra- and interpersonal synchronisation—it is remarkable that the concept of entrainment has been rarely applied in the context of music

9 Ibid., 7.
10 Ibid.
11 Ibid., 7–9.
12 Ibid., 9–17.
13 Ibid., 20–25.

performance.[14] They suggest that since entrainment arises as a factor in any form of interaction or communication, 'we should expect that it is a factor in any variety of musicking'.[15] Thus, a role for entrainment exists to promote a shift in ethnomusicological research towards 'the investigation of musicking as embodied, interactive, communicative behaviour'.[16] Part of this shift involves moving from a purely cognitivist interpretation of temporal sensitivity, since '[a]n entrainment model suggests that we look at engagement with music not simply as a process of encoding and decoding of information, but of embodied interaction and "tuning-in" to musical stimuli'.[17] As we shall see in section 2.2, Mark Doffman proposes that entrainment is a means of explicating the experience of groove as an embodied and intersubjective engagement;[18] while in her study of trance behaviour, Judith Becker refers to rhythmic entrainment as a form of ‘structural coupling’.[19] London deploys entrainment as a concept that explains the ability to attend to musical metre. He argues that metre functions as a 'dynamic anticipatory schema', and is the product of an inherent human ability to entrain to periodic stimuli.[20] David Huron suggests that a musician's temporal expectations might be represented using 'mental oscillators' of various frequencies, and also identifies metre as a 'predictive schema for temporal events'.[21] For Vijay Iyer, entrainment is an intrinsic feature of his embodied account of music performance. He cites research suggesting that entrainment offers a preferable explanation for the ability to detect timing behaviours (and by implication

14 Ibid., 30.

15 Ibid., 38.

16 Ibid., 39.

17 Ibid., 37.

18 Doffman, ‘Feeling the Groove’, 53–54.

19 Becker, *Deep Listeners*, 127. ‘Structural coupling’ is a term coined by Maturana and Varela, in the context of their theory of autopoeisis: it describes an organisms manner of responding and adapting to perturbations from its environment and other organisms, in a way that preserves its autopoeitic functioning. See Maturana and Varela, *The Tree of Knowledge*.

20 London, *Hearing in Time*, 10–12, (2012).

21 Huron, *Sweet Anticipation*, 198–201, (2006).

to judge temporal duration),[22] and he contends that we '*entrain* to a pulse based on the echoic storage of the previous pulse and some matched internal oscillator periodicity'.[23] Accordingly, he defines meter as 'an internal periodic template that frames and temporally grounds perceptions and actions',[24] and follows London in characterising (the entrainment to) metre as 'an *attentive* mechanism'.[25] Similarly, in their study of a listener's movements to 'changes in the micro-rhythmic design of the basic pulse of the groove', Danielsen *et al* adopt 'theories of entrainment and dynamic attending' as a means of psychologically modelling the 'internal beat', in preference to an 'internal clock model'.[26] Thus, a range of perspectives draw upon entrainment as a principle that underlies a musician's (or listener's) critical capacity to judge temporal duration. This temporal sensitivity does not involve referencing an internal clock or time-keeper that in some manner encodes or represents temporal duration. Rather, as I discuss in the following subsection, the supposition is of an essentially analogical relationship existing between neurological states and the subjective experience of temporal passage.

2.1.2: Entrainment and attention

From a phenomenological perspective, some aspects of the application of entrainment as a theoretical principle are problematic. To gain a sense of the issues involved requires exploring the theoretical understanding of entrainment; in particular, the supposition that entrainment functions as an attentional mechanism, and the precise meaning of this claim. The proponents of musical entrainment refer

22 Schulze, 'The Detectability of Local and Global Displacements in Regular Rhythmic Patterns', (1978); Iyer, 'Microstructures of Feel, Macrostructures of Sound', 42.

23 Iyer, 'Microstructures of Feel, Macrostructures of Sound', 24.

24 Ibid., 44.

25 Ibid., (emphasis in original).

26 Danielsen, Jensenius, and Haugen, 'Moving to the Beat', (2015).

to the work of Mari Riess Jones and her formulation of a theory of dynamic attending.[27] Clayton *et al* state that 'Jones' theories of "attending rhythms" are useful in describing entrainment as an adaptive process, capable of adjusting to widely different musical contexts under the influence both of conscious direction and of the musical stimulus'.[28] Jones' position originates with the observation that time is a dimension of experience whose significance had been overlooked: attempts to characterise the perception of events as they dynamically unfold from a cognitivist perspective—meaning within a framework of internal (symbolic) representation—have failed to incorporate time as a salient feature of perceptual events.[29] For Jones, a pervasive feature of world events (in particular, 'action patterns, music and speech') is their temporal structuring,[30] and her view is that biological mechanisms attune to this structuring.[31] The attunement is founded at a physiological level, in particular within the neurological system where large scale neural events are temporally patterned as 'perceptual rhythms'.[32] These rhythmic biological processes may deviate from their modal periods, and 'tune-into' or become synchronised with real world patterns.[33] Jones claims that for all levels of real world temporal structuring there exist responsive perceptual rhythms that can match their time structure.[34]

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27 Jones and Boltz, ‘Dynamic Attending and Responses to Time’; Jones, ‘Time, Our Lost Dimension’, (1976); Jones, ‘Only Time Can Tell’, (1981).

28 Clayton, Sager, and Will, ‘In Time with the Music’, 28.

29 The problem is that in some cases the temporal dimension has simply been overlooked, Jones, ‘Time, Our Lost Dimension’, 324; Jones, ‘Only Time Can Tell’, 568; in others that it has not been adequately theorised, Jones and Boltz, ‘Dynamic Attending and Responses to Time’, 459–460.

30 Jones and Boltz, ‘Dynamic Attending and Responses to Time’, 461–470.

31 Jones, ‘Time, Our Lost Dimension’, 347. The attunement amounts to a detection of temporal invariants, an approach that is an adaption of James J. Gibson’s notion of perceptual invariance; see Gibson, *The Ecological Approach to Visual Perception*, 66–69, 297–298.

32 Jones, ‘Time, Our Lost Dimension’, 340.

33 Ibid.

34 Ibid.

Jones' theory of dynamic attending develops from this characterisation of attunement, as an explanation of the psychological capacity to attend to events at varying temporal scales. In musical terms we can straightforwardly consider the difference between paying attention to a melodic line as it progresses from measure to measure and focussing upon the subdivision of the pulse. Jones' argument is that internal rhythmic patterns of the neurological system vary in amplitude and frequency, and that the phenomenal experience of attending, or the focussing of attention towards external events, in some respect coincides with the peaks in amplitude of oscillation.[35] Attention may become attuned to the specific durations of relatively stable patterns, or 'temporal referents', located within the larger complexity of the temporal structure of an event.[36] Thus, the amplifications in endogenous processes underlie the capacity of attention to focus at the level of a specific temporal referent, or to shift between different referents.[37] Temporal referents are utilised as a basis for forming expectations concerning the timing of upcoming events at a larger scale. That is, the amplified oscillatory frequencies not only continue as a consequence of the inertia and momentum of the internal dynamics of the nervous system, but in so doing subtend the psychological ability to project forward and anticipate the timing of the next upcoming event. Jones and Boltz term this form of attention 'future-oriented attending',[38] and they contrast it with the supposition that the judgement of temporal duration is founded purely on the basis of the memory of an immediately past event.[39]

35 Ibid., 345; Jones and Boltz, ‘Dynamic Attending and Responses to Time’, 470.
36 Jones and Boltz, ‘Dynamic Attending and Responses to Time’, 470.
37 Ibid.
38 Ibid., 471.
39 Ibid., 461.

Proponents of entrainment have uncritically applied Jones' attentional theory in the context of music performance and perception. Robert Gjerdingen characterises attention as ‘the many diverse aspects of human information processing that focus, filter or otherwise guide our perceptions of the world’.[40] London takes up Gjerdingen's description of metre as 'a mode of attending'.[41] He claims that metre is both a 'kind of behaviour' and a 'perceptually emergent property of musical sound' that 'involves our initial perception as well as subsequent anticipation of a series of beats that we abstract from the rhythmic surface as it unfolds in time', and so 'our perception and cognition of such stimuli'.[42] Accordingly, metre contrasts with rhythm, which 'is that to which we attend', and involves phenomenally present patterns of duration.[43] Describing metre as 'a kind of sensori-motor engagement',[44] London notes that metrical entrainment occurs on a particular time scale that 'engages our sensori-motor system',[45] and in such a way that attention synchronises with 'our capacity and preparedness for movement'.[46] Following Jones, he states that metrical attending is a matter of oscillatory patterns matching to an invariance within the pattern of sound which functions as a temporal referent: entrainment and attending facilitate the perception and cognition of an underlying metric pulse, which in turn orientates and guides action. Thus, metre is 'the anticipatory schema that is the result of our inherent abilities to entrain to periodic stimuli in our environment'.[47] Iyer identifies beat perception with a pattern of coordination between an internally generated process and a periodicity within a complex external rhythm, where the

40 Gjerdingen, ‘Meter as a Mode of Attending’, 68, (1989).
41 Gjerdingen, ‘Meter as a Mode of Attending’; cited by London, *Hearing in Time*, 4.
42 London, *Hearing in Time*, 4.
43 Ibid. See page 29.
44 Ibid., 48.
45 Ibid., 12.
46 Ibid.
47 Ibid.

latter 'drives' the former within a single dynamic system.[48] Keller suggests that coordination between musicians in ensemble performance is facilitated by three 'cognitive-motor skills'; anticipation, awareness and adaption.[49] The adjustment of timing indicates an adaptive 'temporal error correction mechanism', that 'enables *internal timekeepers* in the co-performer's brains', which are identified as oscillations of neural structures; and supports neural entrainment and behavioural synchronisation.[50] The coupling of internal timekeepers to metric periods is identified as a 'resource allocation scheme for modulating attention',[51] while anticipatory expectancies are 'driven by processes that cause perceptual and motor regions of the brain to resonate with [and so become entrained to] incoming... [sensory] information'.[52] Thus, in each of these perspectives, the movement and focussing of attention is correlated with the dynamics of emerging states within a nexus of oscillatory physiological processes.

It should be clear, when the specific details of the theoretical perspective of entrainment are brought to the fore, that we have an essentially naturalised and (seemingly) reductive account of attention and temporal awareness. The ability to judge temporal duration, to temporally anticipate future events, to synchronise individual actions with the surroundings, and also to synchronise actions and perceptions, ultimately resides in the synchronisation of physiological processes with real world events, where this occurs as an instance of material causation.[53] A theory of dynamic attending, based on the concept of entrainment, offers the understanding

48 Iyer, ‘Microstructures of Feel, Macrostructures of Sound’, 46; Large, ‘Dynamic Representation of Musical Structure’.

49 Keller, ‘Ensemble Performance’, 271.

50 Ibid.

51 Ibid., 272.

52 Ibid., 273.

53 Clayton, Sager, and Will, ‘In Time with the Music’, 14–15.

that there exists a temporal correlation, and thus analogical correspondence, between reiterative physiological processes and patterns of attention. The claim is that this correlation underlies the capacity to focus attention within a temporal horizon at specific periodicities; that is, towards or in alignment with temporal referents. In principle, these correlations can be mapped out in detail, and theorised with respect to the contingencies of the expectations that are formed and the extent to which they are fulfilled.

From a phenomenological perspective, a critical response to entrainment is founded upon the observation that physiological processes should not be conflated with phenomenal experience.[54] An amplification of processes in the nervous system at a certain frequency may temporally coincide with the focussing of attention, and it may appear as a material substrate to an act of anticipation: nonetheless, it *is* no more these experiences than it is one of seeing or hearing.[55] Within the framework of entrainment, attention, anticipation and awareness, as constituted forms of consciousness, are not so much explained as assumed. In itself, this is not problematic as these modes of consciousness are given as self-evident dimensions of experience. All the same, a crucial question can be posed: does attending, or the focussing of attention, *result from* the heightened amplitude of endogenous processes at a certain frequency (as the resort to material causal mechanisms implies, and Jones, Clayton *et al* and others appear to suppose), or might it be the reverse, that the active focussing of attention *determines* the frequency? In other words, what of agency and subjectivity? No doubt, endogenous processes of the body may become entrained to external stimuli, or again internally entrained to one another. However, properly speaking, entrained *behaviour* between human subjects occurs at a

54 See Dreyfus, *What Computers Can't Do*, 176–180.

55 See Secora Pearl, 'Cognitive vs. Physical Entrainment', 107, (2005).

phenomenological level, either as a passive accommodation to external influences that are nonetheless subjectively experienced, or an active and consciously motivated adjustment.[56]

The argument here relies upon a critical distinction, identified by Husserl, between the body as *leib* and *körper*. The latter term relates to the living body as it is objectively observed, the former to the body as subjectively and un-thematically 'lived'.[57] Zahavi describes this lived-experience of the body 'as a unified field of activity and affectivity, as a volitional structure, a potentiality of mobility, an "I do" and "I can"', remarking that '[w]hen the body moves and acts, *I* am moving and acting'.[58] A living organism may be entrained through interactions within the physiological system or in its coupling with its surrounding environment. Behaviour (entrained or otherwise), in its fundamental sense, refers to the (egoically) motivated activity of the subjectively lived body. These observations call into question the claim that entrainment is 'an adaptive process, capable of adjusting to widely different musical contexts *under the influence... of conscious direction*'.[59] This is because Jones' theory of dynamic attending describes a sub-personal process (operating at a physiological level) that underlies the selection of objects of attention through the mechanisms of entrainment. Attending, understood in this sense, is conceptually distinct from the capacity of consciousness to actively focus attention. As Roholt observes, according to both Iyer and London, 'rhythm perception involves

56 On a related point, Gjerdingen's conception of attention, as a human information process that focuses or guides perception, might appear plausible (putting to one side the issue of whether perception is a case of information processing and what it means to suggest that it is; see Dreyfus, *What Computers Can't Do*, 164–165), yet leaves unexamined the interrelatedness of attention and agency.

57 Zahavi, *Husserl's Phenomenology*, 101; Husserl, *Ideas II*, 152–154.

58 Zahavi, *Husserl's Phenomenology*, 101, (emphasis in original); in a similar vein, Wittgenstein asks, 'what is left over if I subtract the fact that my arm goes up from the fact that I raise my arm?' Wittgenstein, *Philosophical Investigations*, para. 621.

59 Clayton, Sager, and Will, 'In Time with the Music', 28, (emphasis added). See page 44.

neural mechanisms *that have to do with body movement*—actual bodily movement [i.e., movement that is subjectively motivated] is not a necessary component'.[60] This question of the relationship between the living body and lived bodily subjectivity is neither explicitly considered nor implicitly clarified by proponents of entrainment.

The phenomenological position, then, is that the psychological ability to project expectations of future events cannot be exhaustively explained in terms of endogenous biological processes. Physiological processes are objective events that operate within an objective framework of time. By contrast, the judgement of temporal duration is a subjective act, and attention, anticipation and awareness are experiential dimensions of such acts. As with any experience, an act of judgement is temporally and subjectively structured, yet the nature and constitution of time as it is experienced is distinct from time as a quantifiable dimension of an objective, material world. In these respects, as an account of the ability to judge temporal duration, and other related abilities (to anticipate the timing of events, and to coordinate actions in time with others), entrainment and the theory of dynamic attending do not fully consider essential aspects of these capacities.

2.2: Mark Doffman: groove as the feeling of entrainment

'Feeling the groove: shared time and its meanings for three jazz trios' is a doctoral thesis submitted by Mark Doffman to the Open University in 2008. The central concern is with the phenomenon of groove, described as a 'central part of the jazz aesthetic'.[61] Doffman's work is a study of musical interaction and timing behaviour, and his thesis is summarised by the statement that '[g]roove is the musical feeling of entrainment, inflected by intersubjective temporal models, and expressed through the

60 Roholt, *Groove*, 118; (emphasis in original).

61 Doffman, 'Feeling the Groove', 1.

cultural norms of jazz'.[62] His intention is to examine musical timing, taken as both 'as an embodied activity and a social process',[63] in terms of both the meaning and the experience of groove. For Doffman, 'groove' is understood primarily as musical affect—a ‘feeling’—rather than structure, arising from a rhythmic engagement between players. In one respect, Doffman's thesis is a continuation of a program set out by Keil to investigate the micro-timed relationships between musicians.[64] Doffman's research involves extensive empirical measurements of musicians under observation within an ecologically valid context: yet, he goes further than previous studies of the expressive properties of timing by relating micro-timing to musical structure, and also by enquiring into how musicians *experience* groove.[65]

2.2.1: The meaning and experience of groove

Doffman considers groove from a wide range of theoretical perspectives which fall into three categories:

- The meaning of groove is positioned in relation to ideas he draws from pragmatics, meta-pragmatics and ethnomusicology, where he proposes that musical meaning primarily arises 'as a shared intersubjective construction'.[66]
- The experience of groove is described in terms of a naturalised phenomenology, where a dynamic process of entrainment 'grounds musical interaction in both the intersubjective and the temporal'.[67]

62 Ibid., 295.
63 Ibid., 2.
64 Keil, ‘The Theory of Participatory Discrepancies’, (1995); See also Keil, ‘Motion and Feeling through Music’, (1996); Keil, ‘Participatory Discrepancies and the Power of Music’, (1987); Prögler, ‘Searching for Swing’, (1995).
65 Doffman, ‘Feeling the Groove’, 3.
66 Ibid.
67 Ibid., 54.

- In the performance of groove, the entrained behaviour of musicians is mediated through cultural models and schemata.[68]

Doffman applies these perspectives to case studies of musicians performing *in situ.* For the case studies he applies a dual approach comprising an empirical study of the timing profiles of jazz trios performing in a live setting, supplemented by a qualitative analysis of interviews subsequently undertaken with the research participants. My interest here is primarily with respect to a naturalised phenomenology of the experience of groove.

For Doffman, 'groove requires the capacity to share [a] common ground of timekeeping with others'.[69] He aims to articulate this capacity in terms of a phenomenological understanding of intersubjectivity, which he incorporates 'as a means of marshalling a range of ideas on embodiment and motion that begin to explain the foundations of groove'.[70] Intersubjectivity captures the meaning and experience of making music as one that is 'generated through the sharedness of action, knowledge and belonging'.[71] As Doffman acknowledges, the concept of intersubjectivity is multi-layered.[72] He draws upon sources in phenomenology and developmental psychology that argue for a 'radical intersubjectivity' understood as 'a pre-reflexive, constituting of the world and others',[73] in which subjects interact

68 Ibid., 73.

69 Ibid., 44.

70 Ibid., 37.

71 Ibid., 45.

72 Ibid., 44. Zahavi describes intersubjectivity as designating ‘a plurality of subjects and the relation that exists between them’. Zahavi, *Self and Other*, 97. This designation encompasses empathy and alterity, where intersubjectivity is also recognised as a constitutive structure. Moreover, from a phenomenological perspective, ‘subjectivity and intersubjectivity... are, in fact, complementary and mutually interdependent notions’, Zahavi, *Subjectivity and Selfhood*, see 174–177.

73 Doffman, ‘Feeling the Groove’, 48.

without prior conscious reflection of the situation or their role within it.[74] Doffman observes that radical intersubjectivity is exemplified by the way musicians normally work when they play together, for example when two teenagers strum guitars.[75] It also speaks of a powerful aspect of music performance, namely the 'moving towards an unreflective musical engagement with others'.[76] These moments, which are regarded as the 'peak experience of playing', correspond to 'Schutz's famous formulation of the phenomenological basis of the social world as a mutual “tuning-in”'.[77]

The discussion of intersubjectivity prepares the ground for two of the central tenets of Doffman's thesis: as mentioned, one of these is that '[g]roove is the musical feeling of entrainment',[78] where entrainment is a tendency of 'independent rhythmic systems [to] fall into step with one another':[79] this in turn entails the second, 'seeing groove[ ] as a naturalised, embodied form of intersubjectivity'.[80] This 'naturalised intersubjectivity' draws upon the process of entrainment, as the immediate empathic connection implied by radical intersubjectivity 'can be motivated through the embodied mechanisms of entrainment'.[81] The entrained behaviour of musicians taken as a whole (such as when grooving together), is identified as a form of 'primary musical intersubjectivity' with an 'irreducibly temporal character' that 'grounds musical interaction in both the intersubjective and the temporal'.[82] The primary

74 Ibid., 37. This characterisation of intersubjectivity is put forward by Gallagher and Zahavi as an alternative to theoretical formulations of ‘theory of mind’ in cognitive psychology and social science. See Zahavi, *Self and Other*, chap. 11; Gallagher and Zahavi, *The Phenomenological Mind*, chap. 9. See also page 309.

75 Doffman, ‘Feeling the Groove’, 48.

76 Ibid.

77 Ibid.

78 Ibid., 295.

79 Ibid., 54.

80 Ibid., 53.

81 Ibid., 53–54.

82 Ibid., 54.

intersubjectivity of entrainment is evident in its being an immediate, pre-reflective and embodied form of exchange with others, contrasting with a 'secondary intersubjectivity' whose shared cultural and conceptual understandings are mediated discursively.[83]

Doffman relates entrainment to conceptions of attention that harmonise with the idea of a living system as actively and reciprocally engaged with its environment.[84] Following Jones, he states that attention is a mechanism or 'system that tunes into temporal events', and that 'organisms interact with events' through the medium of time.[85] Furthermore, musical metre is understood as an expression of an 'interaction between temporal events (beating drums, footsteps, a choir, a clock), as well as the internal dynamic rhythms of an organism (neuronal assemblies involved in action/perception cycles)'.[86] This latter claim also points to how entrainment may underpin music performance as a bodily phenomenon.[87] He notes a move towards recasting cognition towards a more 'integrated, dynamic perspective', influenced by the enactive, ecological, 'agent-in-the-world' as proposed by Varela *et al*.[88] In particular bodily entrainment has come to be regarded as facilitating a relatively subliminal level of awareness:[89] between players, coordinated bodily movements are (intentionally or otherwise) enabled by auditory, visual and social cues.

83 Ibid., 73.
84 Ibid., 60; Gibson, *The Ecological Approach to Visual Perception*.
85 Doffman, ‘Feeling the Groove’, 60.
86 Ibid., 61.
87 Ibid., 68.
88 Ibid., 69; Varela, Thompson, and Rosch, *The Embodied Mind*.
89 Doffman, ‘Feeling the Groove’, 69–70.

2.2.2: Entrainment as a naturalised phenomenology of music making

From the perspective of this thesis, the problematic issue is Doffman's claim that the experience of entrainment in the performance of groove grounds a radical intersubjectivity, or that groove might be seen as 'a naturalised, embodied form of intersubjectivity'.[90] Although in many respects Doffman clearly embraces a phenomenological understanding of intersubjectivity, it is hard to see how 'the capacity to share [a] common ground of timekeeping with others'[91] is to be reconciled with a naturalised understanding of temporal awareness. Given that in phenomenological terms intersubjectivity is a constituted (and also constitutive) dimension of subjective experience, one that encompasses empathic awareness, alterity and social cognition, it is reasonable to ask in what sense entrainment might ground intersubjectivity. I have made the case in Section 2.1.1 that psychological and (ethno)musicological studies of musical timing and interaction have drawn upon a thoroughly naturalised conception of entrainment; one where the experiential mode of attention is explicitly referred to, but only insofar as it correlates with peaks of neurological activity. The understanding of attention as a structural feature of a broader field of intentional awareness, one moreover that exhibits a temporal horizon, is not considered. The application of the concept of entrainment as a way of modelling social behaviour might be *consistent* with a phenomenological characterisation of social experience—and in these terms we could speak quite reasonably of a naturalised phenomenology.[92] However, this is far from offering a phenomenological analysis of 'a common ground of time-keeping', and it is far from

90 Ibid., 53.

91 Ibid., 49.

92 See Zahavi, ‘Naturalized Phenomenology’, 14–15.

clear what is meant by the idea of a 'naturalised intersubjectivity' that is based upon a reductive understanding of temporal awareness.

If the concept of entrainment is to offer the possibility of a naturalised phenomenology of musical interaction, then either it must be reformulated, or augmented by further perspectives that explicitly incorporate subjectivity as a structural feature of consciousness. As it stands, the concept of entrainment presupposes a naturalised understanding of time; that is, time as an objective, measurable property of events in the world. If we are to come to a properly phenomenological understanding of the shared performance of rhythm and groove, the phenomenological relationship between subjectivity and temporality needs to be incorporated into Doffman's theoretical position. This thesis outlines a basis for such an approach.

2.3: Tiger Roholt: groove and the affective dimension of motor-intentionality

Groove: A Phenomenology of Rhythmic Nuance (2014) is a study of the experience of groove undertaken by Tiger Roholt, who is Chair of the Department of Philosophy at Montclair State University. The publication is based on his own doctoral research thesis. In certain respects it is similar to Doffman's thesis, as both are phenomenologically-informed studies that focus specifically on the experience of groove. One immediate difference is that Doffman is concerned with the experience of jazz musicians in the performance of groove, whereas Roholt treats the subject more generally as a central and essential feature of popular music, and does so primarily from the perspective of the listener. Rather than directly observing and interviewing musicians, Roholt's approach is by way of a comparison between analytic and phenomenological interpretations and perspectives. He does this with a

view to adjudicating upon which of these philosophical orientations offers the best prospect for capturing the experience and understanding of the phenomenon of groove.

2.3.1: A dynamic, bodily understanding of groove

As with Doffman, Roholt's central theme is that our primary understanding of groove is given through the manner and mechanisms by which we *feel* it. However, whereas for Doffman groove is the 'feeling of entrainment', Roholt draws upon the ideas of Merleau-Ponty to make the claim that 'the feel of a groove is an instance of the affective dimension... of "motor-intentionality"'.[93] Roholt identifies two distinct aspects to this experience; the timing nuances by which musicians produce groove; and the affectivity of groove—the felt experience of ‘leaning’, ‘pushing’ and/or ‘pulling’. His stated intention is to demonstrate exactly how these aspects are related.[94] He does this by fleshing out four pre-theoretical intuitions he identifies as being commonly held about the nature of groove. First, as noted, grooves have a *feel*, or a 'conspicuous affective dimension', which is generally regarded as the dominant aspect of groove.[95] Further; a groove involves the *body in motion;* to *understand* a groove is to feel it; and this understanding occurs *through* the body.[96] Roholt takes the position that 'to "get" a groove *just is* to comprehend it bodily *and* to feel that comprehension'.[97] The understanding of groove that arises through an embodied engagement with musical sound, and the affectivity of this engagement, 'are two sides of the same coin'.[98]

93 Roholt, *Groove*, 4.
94 Ibid., 3.
95 Ibid., 2.
96 Ibid.
97 Ibid., 5.
98 Ibid.

Roholt's argument progresses through a number of steps. From the analytic perspective, the timing nuances that define groove can be observed, measured and analysed, and in such a way groove can be clarified and understood.[99] Roholt rejects this position, and instead argues that musical nuances function in the background of our awareness as perceptually indeterminate aspects of musical sound:[100] as such, they make a 'positive contribution' by generating musical effects.[101] Consequently, when timing nuances are foregrounded within a process of analysis they lose their indeterminacy, so that the power to realise musical objectives—for instance, the experience of groove—is passed over.[102] Roholt further argues that to understand how we 'get' a groove we have to consider how we relate to music with our bodies. Drawing upon Merleau-Ponty's conception of motor-intentionality,[103] he observes that we achieve this through an active engagement and exploration that is normatively oriented towards musical sound.[104] This embodied engagement is accompanied by a specific kind of affectivity, which is to say the feeling of groove.

Roholt situates his discussion of groove in the context of the Beatles recording of 'Love Me Do'. Why, he asks, was George Martin not happy with the

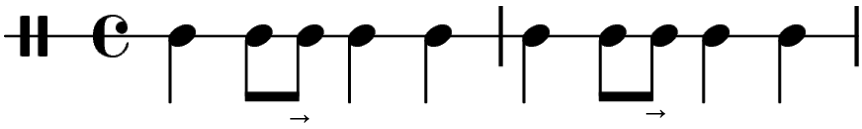


Figure 2.1: Ringo Starr's drum pattern for 'Love Me Do'.
(Reproduced with permission from Tiger Roholt, Groove, 24)

99 Ibid., 26.
100 Ibid., 63–65.
101 Ibid., 61.
102 Ibid., 65.
103 Ibid., 93–94.
104 Ibid., 96–98.

playing of Ringo Starr?[105] Famously, Martin brought in the session drummer Alan White and left Starr to play tambourine. White played an identical rhythmic pattern to the attempt made by Starr, without significant differences in terms of instrumentation or embellishment. The contrast actually lies in the timing profiles of the respective musicians,[106] with White pushing the rhythm forward by playing the skip beat of the swing pattern early, where Starr positions the skip beat later, making 'the rhythm seem to lean backward' (see figure 2.1).[107] Roholt identifies the contrast in timing patterns as the factor that produces 'a difference in groove'.[108] Given that the particular character of groove in part resides within the specification of timing patterns, the temptation is to suppose that the phenomenon will be clarified by measuring and analysing the timing behaviour of musicians.[109] The problem is that this approach does not offer any significant insight into the *perception* of timing nuances, and Roholt's view is that if we are to properly characterise groove then 'we must endeavour to clarify *those perceptions*'.[110]

2.3.2: The perception of (musical nuances:) the ineffable and the indeterminate

Roholt proceeds by reviewing analytic treatments of the perception of musical nuance.[111] Diana Raffman acknowledges that nuances are perceptual properties of musical sound, and holds that the understanding of musical phenomena is mediated through conceptual schemata.[112] This position implies that certain musical effects that depend upon timed or harmonic nuances are ineffable, as they 'slip through the grid'

105 Ibid., 13–15.
106 Ibid., 18–19.
107 Ibid., 24.
108 Ibid., 17.
109 Ibid., 26. Roholt cites Iyer as taking this position, but this approach (which has been advocated by Keil and Joseph Prögler) has also been adopted by Doffman.
110 Ibid., 27; (emphasis in original).
111 Raffman, *Language, Music, and Mind.*, (1993); Dennett, ‘Quining Qualia’, (2002).
112 Roholt, *Groove*, 20–21.

of pitch and time categories as pre-schematised perceptions.[113] Precisely because musical nuances are pre-schematic they cannot be described: as Raffman remarks, 'we cannot name them because we cannot recognise them'.[114] Roholt counters this position by taking up the argument that nuanced perceptions can be made intelligible through the use of indirect description, or literary devices such as metaphor.[115] It follows that musical nuances can be rendered as effable 'by carefully *describing perceptual experiences*',[116] where a description refers to the *objective* of the nuance along with the musical context in which it is employed.[117]

Roholt observes that Raffman offers a good example of an indirect description, when she refers to the 'brightening' effect of a slightly raised F-sharp played over a sustained D natural. Raffman characterises nuances in terms of their structural effects: the purpose of widening the interval is to emphasise a new key of D major as it modulates from B minor.[118] However, the fact that the nuance has been indirectly described in meaningful terms as a 'brightening' is overlooked.[119] In part, this is because Raffman's concern is with the classical tradition where the received opinion is that the objective of nuances is 'to convey musical structure to listeners'.[120] Roholt observes that in contemporary popular music nuances are typically intended to create non-structural effects, as with the example of 'brightening', but also the various modes of groove. Not only are musical effects the objective of musical nuances, they also 'ground musicians' evaluations of their own performances'.[121]

113 Ibid., 21.
114 Raffman, *Language, Music, and Mind.*, 84; cited by Roholt, *Groove*, 28.
115 Roholt, *Groove*, 29–31.
116 Ibid., 31; (emphasis in original).
117 Ibid., 31–32.
118 Raffman, *Language, Music, and Mind.*, 66; cited by Roholt, *Groove*, 32.
119 Roholt, *Groove*, 33–34.
120 Clarke, ‘The Perception of Expressive Timing in Music’, (1989); cited in Roholt, *Groove*, 33.
121 Roholt, *Groove*, 40–41.

Thus, the task is to elucidate how musical nuances come to fulfil the objective of creating musical effects, 'the hearing of nuances *as nuances*';[122] or more specifically, how timing nuances generate the perceived qualities of 'driving' or 'laid back' that are integral to the experience of groove.

Roholt notes the general position that aesthetic experience is not merely 'a matter of perceptual reception', but also an active exploration, where 'we can and often must, look and listen to different features of an artwork in our attempt to grasp its various qualities'.[123] As Steven Feld observes in relation to groove, 'getting into a groove describes how a socialised listener anticipates patterns in a style, and feelingly participates by momentarily tracking and appreciating subtleties vis-à-vis overt regularities'.[124] Roholt considers the active nature of perception in two respects; the structuring of perceptual acts, and the embodied engagement with perceptual objects. Concerning the former, he returns to the notion of ineffability, and does so in relation to Daniel Dennett's analytic treatment of the perception of complex sounds and harmonics. Dennett argues that nuances can be made effable when they are effectively analysed.[125] A plucked E-string on a guitar may sound 'rich, ineffable and unanalyzable',[126] yet if the harmonic is played in isolation it is then possible to play the open E-string again and hear a composite sound that includes the harmonic tone. For Dennett, the procedure (of playing open string, harmonic and then open string again) leads to a clarification of the original perception, where a constituent part has been identified and then heard in relation to the sound as a whole. Roholt argues that

122 Ibid., 46.

123 Ibid., 44.

124 Feld, ‘Aesthetics as Iconicity of Style (Uptown Title); Or, (Downtown Title) “Lift-up-over Sounding”: Getting into the Kaluli Groove’, 111, (1994); cited by Roholt, *Groove*, 46.

125 Roholt, *Groove*, 46.

126 Ibid., 47.

Dennett is mistaken because, rather than clarifying the original heard sound, 'his instructions lead us to a *different* perception'.[127]

To explain his point Roholt turns to Merleau-Ponty's discussion of figure and ground, noting that the same object may be perceived differently when contrasting parts of it are foregrounded, such as in the case of the Necker cube (figure 2.2). The point applies to Dennett's E-string. When it is first plucked attention is not directed to the overtone: yet, when the string is played following the isolated harmonic the overtone is effectively foregrounded—the sound is attended to analytically—leading to an altered perception.[128] Thus, the sensitivity of a listener to a musical effect is dependent upon the structuring of the perceptual act. Moreover, the role or significance of musical nuances are determined in relation to the overall configuration of a sonic form, or *gestalt*, such as a melody or rhythmic pattern.[129] For Merleau-Ponty, the holistic perception of *gestalt* forms is primary,[130] so that a 'total perception is not built out of... analytic perceptions, but it can always dissolve into them'.[131] Consequently, to focus on a particular feature within the perceptual field is 'to interrupt the total life of the spectacle',[132] which for Roholt implies that 'to

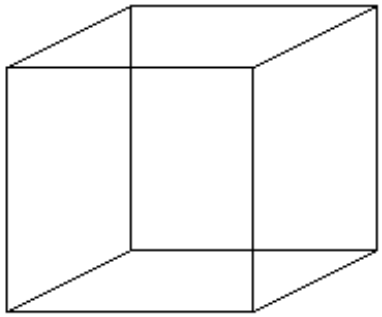


Figure 2.2: Necker Cube

127 Ibid.
128 Ibid., 49.
129 Ibid., 54.
130 Ibid., 53.
131 Merleau-Ponty, *Phenomenology of Perception*, 2012, 307; cited by Roholt, *Groove*, 53.
132 Merleau-Ponty, *Phenomenology of Perception*, 2012, 235; cited by Roholt, *Groove*, 51–52.

elucidate the *musical significance* of nuances... by focusing upon them is simply a methodological mis-step'.[133] When we perceptually focus upon Raffman's raised F-sharp, the effect of 'brightening' disappears.[134] Similarly, it is impossible to analytically focus upon timing discrepancies without disrupting the emerging experience of groove.[135]

Roholt takes the point further by arguing that musical perceptions are ordinarily structured so that musical effects appear as figure, and do so against musical nuances appearing in the background. Moreover, background features exhibit a perceptual indeterminacy, or ambiguity, which should be recognised 'as a positive phenomenon' that contributes to the overall perception of an object.[136] Consider the example of Müller-Lyer lines (figure 2.3): Roholt interprets Merleau-Ponty as arguing that in ordinary perception the lines look neither equal nor unequal in length but rather appear as perceptually indeterminate, thus fostering the illusion of being different.[137] The ambiguity of ordinary perception contrasts with perceiving the lines analytically: by specifically focussing on the lengths of the lines they are

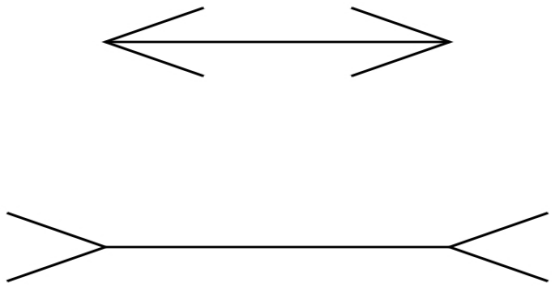


Figure 2.3: Müller-Lyer lines

133 Roholt, *Groove*, 54.
134 Ibid., 57.
135 Ibid., 55.
136 Merleau-Ponty, *Phenomenology of Perception*, 2012, 7; cited by Roholt, *Groove*, 59.
137 Roholt, *Groove*, 59–60.

seen as equal. The same point applies to the harmonic of Dennett's E-string: it is precisely because the harmonic is perceived indeterminately, as a background feature, that the sonic quality of the E-string is experienced as ineffable. Put another way, the ambiguities of indeterminate background features positively contribute to perceptual experience.[138]

Roholt's case is that timing nuances similarly 'show up as indeterminate features', and that the specific affective quality of groove arises precisely because of their indeterminacy.[139] As he explains, '*when a musician's timing nuances (the first aspect of groove) are perceived engagedly, they contribute to fostering the emergence of the feel in experience (the second aspect of the groove)*'.[140] Moreover, the feel of a groove will *only* arise when timing variations are perceived indeterminately.[141] Consequently, Roholt takes a different approach than Doffman towards Keil's processual discrepancies. Doffman aims to analyse the timing profiles of musicians in detail, in particular the timing relationships that emerge between musicians, and interpret these within a theoretical framework of entrainment. Roholt argues that timing nuances implicitly function to produce musical effects, and emphasises that this depends on how a perceptual act is structured, where attentional focussing is an intrinsic aspect of the structuring process. Consequently, Roholt retains the perspective of the subject, whose agency is intrinsically related to the movement and structuring of attention.

138 Ibid., 61–62.
139 Ibid., 64.
140 Ibid.; (emphasis in original).
141 Ibid., 65.

2.3.3: The normativity and affectivity of motor-intentionality

The further sense in which perception is active relates to our *bodily* orientation towards and engagement with the surroundings. This directed bodily awareness, which Merleau-Ponty refers to as motor-intentionality, is neither a matter of conscious deliberation nor one of automatic reflexivity. Motor-intentional awareness is characterised by a pre-reflective yet purposive engagement that is responsive to changing circumstances, exemplified by a musician's manner of holding an instrument and coordinating instrumental movements. Following Husserl, Merleau-Ponty argues that motor-intentionality is presupposed as the basis of cognitive and reflective understanding, rather than the reverse, so that 'consciousness is originally not an "I think that" but an "I can"'.[142] Thus, perception is bodily and situated, functioning as 'a [more basic] mode of being-in-the-world',[143] and for Roholt it is at 'this pre-cognitive level... at which we engage with (perceive, experience, understand) grooves'.[144] This implies that perception is active, in the sense that perception and movement are conceived as co-existing 'in a complex interconnected whole'.[145]

Motor-intentionality exhibits both a normative and affective dimension. Motor-intentional acts have a specific 'feel', and this affectivity informs and directs us towards an optimal perception, a 'maximum grip' of the intended object.[146] Bodily

142 Merleau-Ponty, *Phenomenology of Perception*, 2012, 139; cited by Roholt, *Groove*, 96; the insight originates with Husserl, *Ideas II*, 159–160. See also page 49.

143 Carman, *Merleau-Ponty*, 36–37; cited by Roholt, *Groove*, 96.

144 Roholt, *Groove*, 97.

145 Carman, *Merleau-Ponty*, 87; cited by Roholt, *Groove*, 93–94; The point is reflected in John Dewey's observation that perception and action 'are always inside a coordination and have their significance purely from the part played in maintaining or reconstituting the coordination'. See Dewey, 'The Reflex Arc Concept', 195–196.

146 Roholt, *Groove*, 97–98; Merleau-Ponty, *Phenomenology of Perception*, 2012, 315–316; see also Romdenh-Romluc, *Guidebook to Merleau-Ponty*, 115–116.

feelings of 'rightness and wrongness' and sensations of tension (and relaxation) orientate the perceptual process towards an equilibrium where an object can be seen with the greatest possible clarity.[147] In addition to being the ground of cognitive and reflective understanding, and a manner of orientating ourselves towards our surroundings, motor-intentionality is itself a form of understanding, 'a question of knowledge that is in our hands'.[148] As Roholt comments, '[o]ur bodily apprehension is a practical, pre-reflective, non-cognitive kind of understanding',[149] and he makes the point that this embodied understanding is also temporal.[150] This sets up the argument for the central theme of his thesis, that '*[t]he feel of a groove is the affective dimension of the relevant motor-intentional movements*'.[151] Understanding a groove requires an active bodily exploration of musical sound that involves repeated rhythmic movements.[152] These motor-intentional movements are oriented towards sound in ways that tend towards an optimal perceptual grip; that is, 'getting a groove' requires a 'perceptual skill or facility', a certain *knowing-how* to move to the music.[153] This facility 'involves being able to hit upon an adequate perceptual structure',[154] where the perceptual indeterminacies of timing nuances are not focussed on explicitly, but operate in the background of the sonic field, shaping the perception of the foregrounded sound.[155] As grasping and understanding the sound involves an active bodily engagement, the timing nuances then 'show up as motor-intentional tensions against a norm', as a distinct affectivity of movement, the feel of a groove.[156]

147 Roholt, *Groove*, 98.
148 Merleau-Ponty, *Phenomenology of Perception*, 2012, 145; Roholt, *Groove*, 99.
149 Roholt, *Groove*, 99.
150 Ibid., 100.
151 Ibid., 105.
152 Ibid., 107.
153 Ibid., 71.
154 Ibid., 107.
155 Ibid., 107–108.
156 Ibid., 108.

Thus, getting a groove is to possess 'a non-cognitive, felt bodily grasp of a performance's... pulse, rhythmic pattern, and various timing nuances';[157] to feel it through a direct, pre-reflective and non-objectifying bodily engagement with musical sound.

2.3.4: Towards a phenomenology of groove

While Roholt agrees with Doffman in describing groove as something we primarily understand and experience as a certain (kind of) feeling (of movement), the difference between them resides in what it is that produces such a feeling. For Roholt, the feeling of groove arises through an active and exploratory perceptual engagement with musical sound, rather than the passive registering of the process of entrainment. Moreover, the bodily responsiveness to music is not a matter of being *caused* to move as a result of entrained endogenous processes, but arises through a purposive (and culturally-informed style of) engagement that aims to clarify what is heard.[158] Roholt offers a powerful insight into the nature of our pre-reflective, motor-intentional understanding of and engagement with worldly phenomena, and demonstrates convincingly how the experience of groove arises as an instance of this engagement. The experience of groove is dependent upon the active structuring of listening behaviour, where bodily movement is intrinsic to the perceptual act. In short, moving to a groove is the primary means of *making sense* of the music.

A shortcoming in Roholt's account is his tendency to understate the intersubjective dimension of groove, and this oversight points to a possible line of development of his thought. As Keil and others remark, groove arises through the interplay between musicians, who essentially push and pull against the playing of

157 Ibid.
158 Ibid., 117–120.

one another as much as they do against a shared sense of pulse.[159] Roholt focuses narrowly upon groove as arising through the perception of timing nuances, so disregarding the larger scale interplay of musical motifs.[160] This is something that Roholt acknowledges, and he states that he has focussed on the perception of a single repeating timing nuance for the sake of simplicity. Arguably, this is also because Roholt's primary concern is with the perception rather than the production of rhythmic nuance. Yet, if we consider that a musician will also actively engage with musical sound, not just in the perception but also in the production of groove, clear scope arises for developing Roholt's position in terms of the intersubjective engagement of musicians with one another, where (the feeling of) groove is theorised as the affective dimension of motor-intentionality. That is, the production of groove involves a culturally-informed sensorimotor facility—a specific kind of knowing-how to move in relation to other musicians. This shared, intersubjective know-how is discussed in Chapter 8, in the context of a shared sense of time. Finally, although Roholt's concern is with a temporal modality of music, he offers no explicit theoretical consideration of the phenomenology of time-consciousness—as in the experience of temporal passage—nor the perception and judgement of temporal durations. As I will discuss in section 7.1, the ability to time and coordinate bodily movements rests on the capacity to judge and anticipate events and actions as they

159 See remarks on Wesolowski's vertical discrepancies, page 31.

160 Doffman argues that rhythmic structures (or ‘temporal models’) that appear at the level of tactus/hypertactus have a primacy over processual discrepancies, as they function within a ‘zone of maximal entrainment’, ‘Feeling the Groove’, 228–229. For an extensive analysis, in the context of funk, of the intersection of rhythmic shapes at the metric and micro-timed level, and the musical effects they generate, see Danielsen, *Presence and Pleasure*, chaps 3–7. Danielsen’s analysis is framed from a hermeneutic and existential phenomenological perspective, where she formulates an understanding of the meaning of the immersive experience of groove as ‘presence in pleasure’. Danielsen draws upon Jacque Derrida’s post-structuralist idea of ‘différence’ and Gilles Deleuze’s formulation of ‘difference and repetition’ in a way that takes her analysis outside the framework of this thesis.

unfold, which implies that motor-intentionality presupposes an '*intrinsic* temporality'.[161]

2.4: Simon Høffding: deep absorption and musical passivity

As the title of his PhD thesis suggests, Simon Høffding aims to develop ‘a phenomenology of expert musicianship’.[162] Høffding's overall intention is to investigate 'the essential, structural and invariant dimensions of experiential life' in relation to music performance.[163] In contrast with Doffman and Roholt, where the primary concern is with groove, Høffding's thesis is principally an attempt to elicit the phenomenological structures and processes that are implicated in the constitution of the experience of ‘deep absorption’. Deep absorption refers to the relatively rare experience of being deeply immersed in a (musical) activity to the extent of losing awareness of anything that lies beyond it, 'a self-transforming experience accompanied by either a heightened sense of self or a complete lack of sense of self'.[164] As such, it is differentiated from other states of musical absorption which Høffding taxonomises as 'standard playing', 'absent minded playing' and 'playing under stress';[165] although some of the descriptions of the experience of groove offered by Doffman's research participants, and also the participants in this study, are strikingly similar to this characterisation of deep absorption.[166] Høffding's research methodology involves embedding himself within a string quartet, closely observing their working practices and musical performances, and also periodically conducting semi-structured interviews with each member of the ensemble on a one-to-one basis.

161 Gallagher, *Phenomenology*, 108, (emphasis in original).
162 Høffding, ‘A Phenomenology of Expert Musicianship’.
163 Ibid., 19.
164 Ibid., 12.
165 Ibid., 128–140.
166 Doffman, ‘Feeling the Groove’, 273–4.

He then undertakes a phenomenologically-oriented analysis of the conversations and his observations.

2.4.1: Skilled coping, reflective awareness and absorption

Høffding orientates his study as a critical response to Dreyfus, who takes the position that human expertise is best understood in terms of 'skilled coping'. In contrast to detached rule following, skilled coping is characterised as a flexible and situation-specific mode of involvement, where 'we perceive affordances and invitations to act, we are “pulled” or solicited to certain ways of acting'.[167] Dreyfus' position is a development of a view in contemporary phenomenology, following Merleau-Ponty, that as 'the crucial source of all perception and action, but also the core of our expressive capability', the *body* is 'the ground of all language and meaning'.[168] Put another way, the pre-reflective understanding exhibited in the performance of bodily skills is the ultimate ground of our cognitive abilities;[169] or to restate Husserl's insight, our experience of ourselves as an 'I can' constitutively precedes that of an 'I think'.[170] Roholt's argument, for example, is that the feeling of groove is the experience of the affective dimension of motor-intentionality, understood as a primary mode of bodily engagement. Dreyfus pushes Merleau-Ponty's position further by arguing that not only everyday tasks and performances, but also expert skills are pre-reflectively articulated, and that reflective awareness (such as rule-following) inevitably disrupts their performance. For Høffding, Dreyfus is at fault in

167 Høffding, ‘A Phenomenology of Expert Musicianship’, 25; see also Dreyfus, ‘Overcoming the Myth of the Mental’, 46; The concept of affordance originates with Gibson, who explains that ‘[t]he *affordances* of the environment are what it *offers* to the animal, what it *provides* or *furnishes*’. As such, ‘it implies the complementarity of the animal and environment’, *The Ecological Approach to Visual Perception*, 119.

168 Shusterman, ‘The Silent, Limping Body of Philosophy’, 151; See also Dreyfus, *What Computers Can’t Do*, 255.

169 Dreyfus, *What Computers Can’t Do*, 255.

170 See page 49.

arguing for a mutually exclusive dichotomy between pre-reflective coping and deliberate reflective awareness in the performance of skilled tasks,[171] which, he claims, leads Dreyfus to a 'generalized and uniform idea of "skilled coping"'.[172] He argues that this is an overly reductive and simplistic approach that fails to acknowledge the variety of types of expert performance, and overlooks the 'complex, heteroform, yet connected, phenomena' that are implicated therein.[173]

Høffding aligns his thesis with a number of perspectives that challenge Dreyfus' position. In particular, Andrew Geeves *et al* state that expert performance simultaneously involves coping and reflection, so that expertise is characterized 'by building a mentality with a foot in either camp'.[174] Barbara Montero argues against what she takes to be the widely held view that skilled behaviour is inhibited by thought and/or reflection, a position encapsulated by the expression 'don't think, just do', which she refers to as 'the Maxim'; although her argument is with a specific formulation which holds that performative disturbance is due to reflective and cognitive *bodily* awareness.[175] Montero argues that in many cases the performance of skilled tasks, whether in sports and athletics, or artistic performance, the desire and need for improvement, creativity and control, are often fulfilled by resort to a bodily directed, reflective and cognitive awareness.[176]

Høffding takes a different tack, however, and suggests that the debate concerning whether skilled actions are performed in a purely pre-reflective manner,

171 Høffding, ‘A Phenomenology of Expert Musicianship’, 26–29.

172 Ibid., 142.

173 Ibid.; see also Romdenh-Romluc, ‘Thought in Action’, 204–206 for further criticism of Dreyfus’ position.

174 Høffding, ‘A Phenomenology of Expert Musicianship’, 31; Geeves et al., ‘Applying Intelligence to the Reflexes’.

175 Montero, ‘Does Bodily Awareness Interfere with Highly Skilled Movement?’, 106, (2010).

176 Ibid., 114–117.

or involve reflective awareness, is ultimately unproductive. Instead, in place of 'coping' he adopts the term 'absorption' to articulate a more heterogeneous characterisation of skilled behaviour. This move allows him to re-situate the debate on (musical) expertise, as absorption is 'not best understood in terms of a certain relation between reflective and pre-reflective consciousness because it can encompass moments of both'.[177] Høffding then considers the phenomenon of absorption with reference to the question, 'what happens to the self in musical absorption?',[178] and in terms of the largely overlooked constitutive processes of consciousness known as 'passive synthesis', or 'passivity'.[179] In Husserlian phenomenology, passivity denotes the sense that much of the constitutive performance of consciousness is irreducibly and anonymously pre-egoic: passivity is the 'the soil upon which the free activity of the ego moves',[180] or again a 'diaphanous layer of subjectivity that underlies or precedes the formation of egoic activity'.[181] For Høffding, passivity is implicated in 'a number of different mental functions, some bodily, some to do with time-consciousness, perception, imagination, motivation and association'.[182] At the primordial level of constitution, passivity serves to negotiate between a 'pre-egoic' self and inchoate 'proto-object'.[183] These function as intermediate stages within a mind-world continuum which Høffding describes as an 'enlarged sense of subjectivity',[184] and which he associates with absorption. Pre-

177 Høffding, ‘A Phenomenology of Expert Musicianship’, 159.

178 Ibid., 160.

179 Ibid., 12, 142, 159.

180 Husserl, *Analyses*, 386; cited by Høffding, ‘A Phenomenology of Expert Musicianship’, 161.

181 Høffding, ‘A Phenomenology of Expert Musicianship’, 161.

182 Ibid.

183 Ibid., 162. Høffding illustrates the meaning of these terms with the example of a rustle in the leaves that may be heard as emanating from an indefinite origin, thus potentially designating a bird or animal. The experience is fleeting enough for us not to be sure of which, possibly to the extent that we might wander if it was something simply imagined. In such a case we are left with a pre-egoic and indeterminate perception of an indefinite proto-object. .

184 Ibid., 164.

reflective motor-intentionality is one expression of this pre-egoic functioning, as in our actions we typically pay only a passing, minimal attention to our surroundings, or again, our bodily movements and sensations. It also manifests in other respects, such as when an idea or insight that resolves a problem simply comes to us 'out of nowhere', or we instinctively move to catch a ball.[185] Thus, passivity is experienced 'as unfolding by itself without my contribution while yet existing within the sphere of my enlarged subjectivity'.[186]

In the context of music performance, Høffding applies passivity as a basis for his conception of 'musical passivity', which describes the processes at work in the background of consciousness that inform the active decision making of a musician. He identifies the body schema, emotional life, musical structure and intercorporeity as its principal sources,[187] and argues that the phenomenon of deep absorption arises as a coming to prominence of these sources of passivity. As such, deep absorption is an experience that 'is expressive of a powerful change in the deepest layers of subjectivity and, more precisely, a change in the sense of agency through a different experience of passivity'.[188] This is largely experienced as an alteration in the sense of agency, where 'the music just plays itself', seemingly without deliberate conscious intervention.[189] This suggests that active egoic awareness has been displaced or subsumed as these elements within the passive dimension come to the fore.

185 Ibid., 167–168.

186 Ibid., 166.

187 Ibid., 160. Merleau-Ponty formulates the idea of intercorporeity on the basis of Husserl's observations concerning the 'double sensation' of touch. Husserl notes that the hand touched is experienced as living, in contrast to the touching hand which is 'lived'. Merleau-Ponty's view is that this duality of bodily sensation lends itself to the constitution of embodied others. See ibid., 216; Merleau-Ponty, *The Visible and the Invisible*, 140–143; Husserl, *Ideas II*, 152–153.

188 Høffding, 'A Phenomenology of Expert Musicianship', 159.

189 Ibid., 197.

2.4.2: Attention, as the hallmark of the ego, and musical passivity

Høffding's interest is primarily in deep absorption, yet his analysis is relevant to the other states of musical absorption that he taxonomises. If we accept the analysis, then in general passivity occurs as a continual and tacit background functioning that accompanies the active modes of egoic consciousness. This will then apply to the other modes of performance. 'Playing under stress' is typically characterised by the experience of emotional anxiety coming to prominence, in a manner that is distracting or disruptive. 'Absent minded' playing is arguably an instance of passivity becoming more prominent by default, as a result of an ebbing of egoic attention, so that instead of directly attending to the performance situation a musician finds him- or herself 'going to Netto'.[190] In the relative absence of egoic attention, passivity remains as an autonomous and anonymous pre-egoic functioning that keeps the performative process absent mindedly on track.

The case of standard playing indicates a normatively ideal state of equilibrium, in which the ego fully and actively participates in the musical process, yet always does so against a passive background of embodied skills, emotional affective states, an internalised sense of musical structure (in a broad sense that encompasses both theory, stylistic understanding and repertoire), and an intercorporeally grounded sense of the actions of other musicians. Given that active egoic attention is always founded upon the basis of a pre-reflective and anonymously functioning passivity, the self finds its 'subjectivity as already there, as already shaped and this shape comes from the world as constituted in and absorbed by pre-reflective, passive syntheses'.[191] Thus, in relation to standard playing, the full

190 Ibid., 124.

191 Ibid., 164.

significance of Høffding's analysis lies not merely in the role of passivity, but in the interplay between the passive dimension as it draws upon these sources of pre-reflective understanding, and the active movement of the ego, as when a musician continually shifts and orientates their awareness and attention within the unfolding performance situation (this dynamic relation between egoic activity and passivity is explored further in Chapter 7).

The observation allows us to develop a more nuanced understanding of Montero's argument, and in a way that takes up Høffding's view that expertise is better interpreted within the framework of passivity; an understanding that incorporates egoic activity, and assumes the ego is implicated in both pre-reflective and reflective modes of awareness. Montero's argument that expertise is enhanced by cognitive or reflective awareness has some validity, primarily in relation to the preparatory stages of performance. In acquiring and developing a skill it is common practise to pay explicit attention to and reflect upon somatic movements, tensions and sensations. As Shusterman argues, (retrospective) reflection is a means of altering, improving and refining reflexively expressed habits and dispositions.[192] Ongoing reflective awareness of the body is also essential to the development of skills, yet the empirical evidence is that in performance, once skills are acquired they are most effectively and efficiently deployed by maintaining an *external* focus.[193] That is, 'the Maxim' that Montero disputes as myth, 'don't think, just do', has a corollary; 'keep your eye on the ball': skills are most effectively performed when we remain perceptually focussed on salient features of the situation.[194] One reason for

192 Shusterman, ‘The Silent, Limping Body of Philosophy’, 165, 172.

193 Wulf and Su, ‘An External Focus of Attention Enhances Golf Shot Accuracy in Beginners and Experts’, 386, (2007); Wulf, ‘Attentional Focus and Motor Learning’, (2013); Toner, Montero, and Moran, ‘Reflective and Prereflective Bodily Awareness in Skilled Action’, (2016).

194 This also echoes the view of Merleau-Ponty that the performance of everyday habits is perceptually, rather than intellectually, driven. See Romdenh-Romluc, ‘Agency and Embodied Cognition’, 89–93; ‘Thought in Action’, 199–201.

supposing that the application of 'the Maxim' is effective is that to think about or pay attention to the body is to become distracted from the external *loci* of attention.[195] In musical parlance, the advice is to 'listen and react',[196] as a musician who is overly concerned with the intricacies of their finger movements is not listening and paying attention in a way that supports the musical process.[197]

Montero does not explicitly clarify whether she considers paying attention to be distinct from reflective awareness or thought, although she does distinguish between sensory (i.e., perceptual, including proprioceptive) and cognitive awareness.[198] A possibility to consider here is that the distinction between reflective and pre-reflective awareness cuts across that between egoic activity and passivity. From a Husserlian perspective, as Høffding remarks, although we should construe passivity as an anonymous pre-egoic functioning, 'a hallmark of egoic activity is *attention*'.[199] This implies that both reflectively guided and pre-reflectively performed activity exhibit an active and passive dimension, as they both involve an active movement of attention that is shaped against a background of passivity. We direct our attention whether we act pre-reflectively or actively reflect upon ourselves and/or our actions, so that put simply, these are distinct ways of paying attention. The question is to what extent pre-reflective and reflective attention might co-exist (simultaneously or in a constant alternation between types of states of attention), and how it is that the latter might either enhance or disrupt the former.

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195 Shusterman, ‘The Silent, Limping Body of Philosophy’, 170–171.

196 Hassell, *Thoughts-Concepts-Routines/Exercises*.

197 A point that is supported by remarks of participants in the primary case study. However, as one participant acknowledges, he will direct his attention to his fingers when playing difficult passages. This is consistent with Montero's position, but it should be noted that it is a fall back position, where the normative ideal is to pay attention to other musicians and/or the music.

198 Montero, ‘Does Bodily Awareness Interfere with Highly Skilled Movement?’, 107.

199 Høffding, ‘A Phenomenology of Expert Musicianship’, 168–169; (emphasis added).

The case for 'the Maxim', then, is that in performance attention is most effective when it is perceptual and directed externally. It may be pre-reflectively directed towards external *loci*, as when a musician simply listens and reacts; or actions might be mediated through a reflective stance that may, as Montero argues, serves the performance of the skill, yet also runs the risk of disruption by distracting from a perceptually focussed awareness. In thinking or reflecting upon an instrumental coordination or the possibility of introducing a specific melodic or rhythmic idea, or again in directing attention to a specific aspect of bodily movement, a musician is drawn away from *listening.* Consequently, they are no longer optimally oriented, nor responsively residing in the moment of performance.[200]

Høffding's ideas concerning musical passivity and the interplay between the passive and active dimensions of consciousness make for a powerful and original contribution to the study of music performance. However, he pays relatively little attention to active egoic awareness as compared to the phenomenon of passivity. Arguably, a serious flaw in Montero's argument is that she overlooks the fundamental role of perceptual awareness in the performance of skilled tasks (in the case of musicians, the importance of listening). Høffding does not consider in detail this aspect of expert musicianship. Given that maintaining an appropriate focus is a modality of attention, and that attention is the hallmark of an active consciousness, there is an intriguing relationship to draw out between egoic activity and perceptual focussing.

Høffding's primary concern is with deep absorption rather than musical time.

200 In Chapter 5 I discuss the observation that maintaining an appropriate focus is central to the performance of music.

Nonetheless, he rarely mentions temporality as an aspect of absorption, or indeed as a potential source of deep absorption. He does discuss Mica Endsley's model of 'situation awareness' which incorporates a 'projection of future states',[201] and in his discussions of the string quartet describes the experience of performance as (temporally) 'unfolding'.[202] He also mentions that 'musical passivity is... temporally sustained',[203] and notes that passivity encompasses time-consciousness,[204] yet does not take the discussion of these points any further. Given that musical performance is largely predetermined in a time-specific sense, one that enables a certain kind of expectation of future events, there is clearly scope for incorporating temporality within Høffding's analysis.[205] In his conclusions, Høffding does in fact mention the possibility of developing the concept of deep absorption in relation to time-consciousness. It is not my intention to take up this possibility, nor to develop the idea that musical time might function as a source of musical passivity. However, temporality is a theme I discuss in the context of egoic activity and perceptual focussing in Chapter 7.

2.5: Summary

As already stated, the central concern of this thesis is with a musician's experience of the temporal modalities of music. In this chapter I have presented contemporary perspectives that directly address this concern, and also one that examines the broader theme of the experience of music performance. Each of these perspectives offer points of departure.

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201 Høffding, 'A Phenomenology of Expert Musicianship', 36–37; Endsley and Jones, *Designing for Situation Awareness*.

202 See, for example, 'A Phenomenology of Expert Musicianship', 144.

203 Ibid., 174.

204 Ibid., 161.

205 My thanks to Nanette Nielsen for these observations.

The concept of entrainment has been developed and applied as a principle that is intended to describe and explain the mechanisms that support a musicians ability to time their musical acts in accordance with a sense of metric pulse, and in synchrony with others who are also attuned to the pulse. My view is that a theory of dynamic attending based upon a naturalised conception of entrainment is not able to account for, or fully articulate, the lived experience of time. Ultimately this is because the understanding of entrainment is founded upon an objectification of time, rather than time conceived in terms of temporality, which is to say as an intrinsic and qualitative dimension of subjectivity. In Chapter 3, I present an alternative theoretical formulation of the perception and anticipation of temporal duration, drawing upon Husserl's ideas on time-consciousness and Hasty's concept of metric projection.

Doffman's work focuses upon the specific temporal-musical mode of groove, with reference to two phenomenological structures—embodiment and intersubjectivity—that are implicated in the performance and experience of groove in essential respects. Yet, as argued above, the supposition that listeners respond to music by virtue of entrainment at a physiological level amounts to a reductive understanding of musical engagement. Doffman's position overlooks the *active* (subjectively motivated) bodily engagement with, and exploration of, musical sound, and the fact that the experience of groove demands an appropriate structuring of the perceptual act. Similarly, to describe the synchronisation between musicians as resulting from entrainment is to ultimately cast an active and reciprocal empathic engagement in terms of material causality. Moreover, a theory of dynamic attending reliant upon the concept of entrainment draws upon an impoverished understanding of 'attention'. As indicated in the introduction, the subjective capacity to judge

temporal duration, particularly in relation to musical metre, is one of the themes that serves to structure this thesis.

I take the view that Roholt's principle claims are essentially correct, yet his position calls for theoretical development in three essential respects. The first requirement is for an analysis of motor-intentionality in terms of a phenomenological framework of time-consciousness, which is to say an intrinsic temporality, or embodied temporal awareness. This is a matter I pursue in Chapter 7, where I consider motivated bodily behaviour as the expression of a temporalising consciousness. The second requirement is for a more developed conception of the active dimension of awareness; to elaborate upon the sense of a listener's (or musician's) active engagement with musical sound, and the interconnections between attention, agency and temporality. In this respect, a pathway to this is suggested by Høffding's discussion of musical passivity: in general terms, passivity stands in direct relation to an active dimension of consciousness, whose hallmark is attention.[206] Again, this a theme I take up in Chapter 7. Finally, a sense of groove must be acknowledged as an intersubjective achievement (as Doffman stipulates); a mutually responsive empathic awareness that is evidenced in a reciprocal sensitivity between musicians to one another's musical ideas, expressive styles, and ultimately, manners and habits of timing. In this respect, Høffding's identification of intercorporeity as a source of musical passivity offers a possible line of development. In Chapter 8, I frame this discussion in terms of the affectivity and activity of an embodied, intersubjectively structured, temporalising consciousness.

The contrasting perspectives of Doffman, Roholt and Høffding offer a basis for the further development of an intersubjective and embodied phenomenology of

206 See page 76.

musicianship and musical time. Roholt and Høffding offer significant and insightful analyses of music performance that can be said to 'do justice' to the perspective of the subject; Doffman places particular emphasis upon the intersubjective dimension of musical experience. For this thesis, the direction of travel is with temporality. Intriguingly, for Roholt and Høffding, the question of time barely arises. Given the centrality of time for both phenomenology and music performance this is a somewhat significant oversight. Conversely, Doffman and the proponents of entrainment work on the assumption of an objectified and (constitutively) pre-given, and thus pre-existing, sense of time. The position that I intend to advance is that investigating time-consciousness allows us to develop a sense of the musician as subject, simultaneously affected by and acting to produce musical sound, and continually timing their actions in accordance with their anticipations within a constituted field of ongoing awareness. Conceiving of music performance in terms of temporality offers a means of access to the unfolding experience; and so, of exploring the relationship of the musician to the fundamental and integral aspect of the experience of music performance that we recognise as musical time. Accordingly, this thesis can be seen as an attempt to augment and develop these studies by incorporating a phenomenological understanding of time; the sense of events appearing from the horizon of the future and fading into the past; time not only as duration, but also as continually flowing within the ever present now; in short, the *experience* of time; or again, time as it is lived.

Chapter 3: The Perception of Metre

> [M]usic may be defined—very roughly and tentatively, indeed—as a meaningful arrangement of tones in inner time. It is the occurrence in inner time, Bergson's *durée*, which is the very form of the existence of music. The flux of tones unrolling in inner time is an arrangement meaningful to both the composer and the beholder, because and insofar as it evokes in the stream of consciousness participating in it an interplay of recollections, retentions, protentions, and anticipations which interrelate the successive elements.[1]

This chapter presents a theoretical position concerning the perceptual awareness of musical pulse, and rhythmic and metrical structure. I develop a phenomenological explanation for this ability, and apply this explanation to metrical and rhythmic awareness. I argue that Husserl's structure of internal time-consciousness offers an explanatory basis for Hasty's theory of projection, that also allows for the full incorporation of a subjective perspective. This suggests that Husserl's structure of internal time-consciousness can be applied to Hasty's development of his ideas with regard to metric and rhythmic complexity.

Section 3.1 outlines Hasty's theory of metre as projection. In section 3.2, I offer some background to the issues that Husserl's model of time-consciousness were intended to address, and present a synopsis of Husserl's phenomenological approach to time-consciousness—that is, how Husserl considers our awareness of time and a temporal world comes about. Section 3.3 describes how Husserl's model of time-consciousness has a direct application to metric projection. In section 3.4, I argue that the positions of Hasty and Husserl offer a means of explaining the perception of metre, and conclude by clarifying the difference between a naturalised theory of entrainment and a phenomenological interpretation of projection.

1 Schütz, 'Making Music Together', 88.

3.1: Hasty and the projection of 'metre as rhythm'

In formal terms, rhythm and metre can be contrasted through the distinction between a phrased pattern of notes and the grouping of a regular, recurring pulse. As I discuss in section 1.3, the understanding of rhythm also goes beyond the formal meaning of an articulated pattern of sounds to a sense of movement, animation and continuity. While a common understanding of rhythm is that it based around periodicity, there are occasions for describing certain styles of movement as rhythmic where no periodicity is in fact involved.[2] Thus, it is often the case that to describe an event or process as rhythmic is to ascribe an aesthetic value, as suggesting an organic or vital quality that also invites participation and sympathetic engagement.[3]

Although rhythm may be regarded as embracing the polarity of lawful regularity and ineffable quality of movement, Hasty observes that the fact that metre can be abstracted from rhythm as an underlying periodicity has meant that the distinction between law and freedom tends to be correspondingly identified with metre and rhythm.[4] In particular, it is often taken to coincide with a distinction drawn between objective and subjective time, where the role of metre is to mark-off regular intervals within the passage of a musical phrase, while rhythm is identified with the subjective, sensuous aspect of the musical experience. This entails the consequent implication that metre becomes a denigrated quality—mechanical, monotonous and general—that is antithetical to the free, organic and particular nature of rhythm, so that the role of metre is merely to provide a formal basis for the organisation of rhythmic content.[5]

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2 See page 26.

3 Hasty, *Meter as Rhythm*, 11, (1997).

4 Ibid., 4.

5 Ibid., 5.

Hasty explores a number of historical and contemporary formulations of metre and rhythm, in which the distinction between the two has variously been emphasised and played down. As he describes it, the issue concerning the relationship between metre and rhythm is that of maintaining a balance between distance and meaningful intercourse between the two. Metre needs to be defined in contrast to rhythm, otherwise the distinction between them collapses, but the problem then is one of establishing a relationship where they can be seen to interact.[6] In particular, where a polarity is set up that establishes rhythm as the animating force, the denigration of metre to the status of a regularly repeating, in essence, mechanical pulse is accompanied by a sense of loss of the meaning of metre and pulse as elements within performed music that themselves animate, drive and propel it forward. As Hasty remarks:

> [W]e are confronted with a paradoxical situation—meter, which, as the ordered articulation of “time's flow”, seems the most purely temporal of music's components, and which can be felt as one of the most active, energetic, and palpably *rhythmic* of musical properties, can, nevertheless, be treated as a static grid or container for the real motions created by tones and harmonies.[7]

For Hasty, the situation arises from conceiving of duration itself as an abstract quantity, or 'time-span',[8] which serves as a container that can only be filled with tonal contents or the motion of time; a 'Newtonian, *absolute* time that [flows]... without any intrinsic relation to the things that occur “in” time'.[9] What is left out is an understanding of duration as 'endurance, or the *process* through which something comes to endure';[10] which is to say, a process that unfolds in the passage the time. Consequently, for Hasty, metre and rhythm should not be opposed along the lines of

6 Ibid., 19.
7 Ibid., 59; (emphasis in original).
8 Ibid.
9 Ibid.
10 Ibid.

distinctions between law and freedom, quality and quantity, or subjective and objective time. This is not to say that a distinction should be abandoned; rhythm is not metre in that it need not be metrically organised, although we do speak of metered rhythm.[11] All the same, whilst metre and rhythm may be distinct, in many respects they coincide. As the citation above indicates, metre has a vital role to play in the ongoing production and perception of music in its temporal passage.

3.1.1: Projective and projected potential

To address these concerns Hasty proposes that metre is generated through an act of 'projection', whereby temporal intervals assume the potential of being the 'projective' basis for an ensuing realisation of a 'projected' temporal duration.[12] The idea of projection is illustrated in Hasty's diagram, where the letters A, B and C refer to successive musical events or durations, with *a*, *b* and *c* as the beginning of each event, and the horizontal lines that follow them their sounded duration (see figure 3.1).[13] For Hasty, a 'beginning' is a 'potential for duration', so that in the movement in time from beginning *a* to a new beginning *b*, we have an awareness of a growing duration, which at the moment where the second musical event begins, becomes established as a 'projective potential', as indicated by Q. This potential Q, once actual, then becomes the basis for the projection forward of the subsequent duration. Hasty describes Q' as the 'projected realisation of the potential' indicated by Q.[14] In effect, on the basis of the duration experienced in the movement from *a* to *b*, we establish an anticipation of when the following sound event is to begin. In the movement from beginning *b* to *c*, as Q' functions as the projected realisation of Q, a

11 Ibid., 102.
12 Ibid., 84.
13 See ibid., 85–87.
14 Ibid., 84–85.

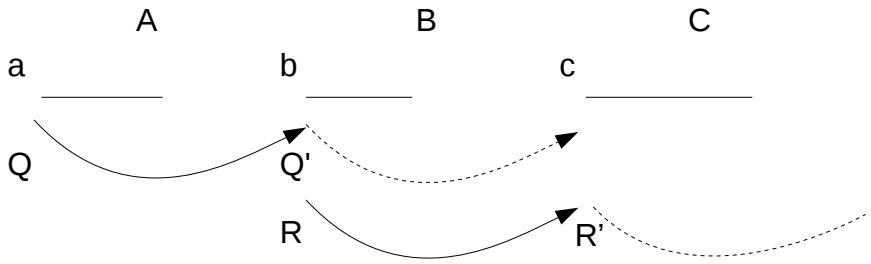


Figure 3.1: Hasty's diagram of the process of projection over the course of three musical events.

(Reproduced with permission from Christopher Hasty, Metre as Rhythm, 87)

further projective potential R is generated and established as the basis for a subsequent projected potential R'. That is, the projected realisation Q' becomes actual at one and the same time as the projective potential R.[15]

This initial formulation of projection is essentially a description of underlying processes implicated in the perception of pulse. As Hasty describes it, metre is typically the product of a complex of concurrent processes of projection. To capture the sense of metre as ordering a grouping of strong and weak beats, Hasty defines metrical accent as 'the accent of beginning', describing it as an 'energy' that is an 'active, creative potential for duration'.[16] Unaccented beat is established as the 'continuation' of a duration initiated by the beginning of a prior strong beat:[17] the new beginning functions as 'a decision for a new becoming that will participate in the becoming of an event previously begun' (see figure 3.2).[18] Larger metrical hierarchies are generated by encompassing complex projections within further projections that involve both beginnings and continuations.[19] Triple metre involves greater complexity, as it involves the projection of continuation. As Hasty explains, 'what is

15 Ibid., 86.
16 Ibid., 104.
17 Ibid., 104–106.
18 Ibid., 104.
19 Ibid., 116–120.

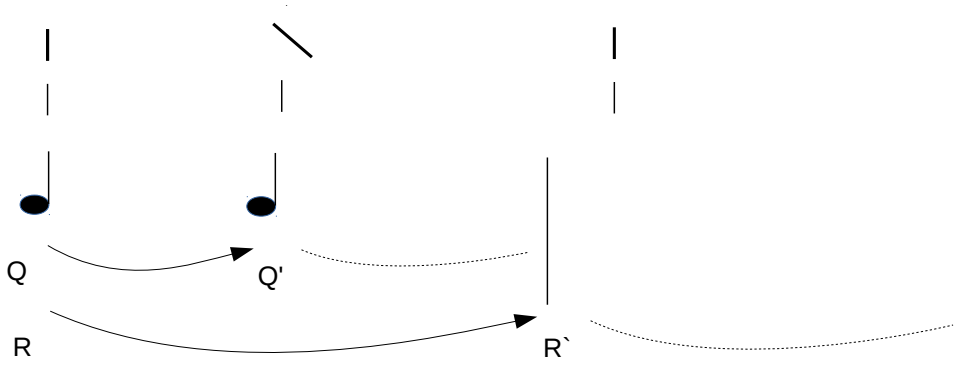


Figure 3.2: Hasty's diagram illustrating complex projection.
'Continuation' is indicated by the backslash (\), Metre as Rhythm, 106

given for a newly emerging [musical event]... is not simply the projective potential (T)... but also a completed projection (S-S')' (see figure 3.3).[20] Thus the projection of triple metre involves 'the deferral of *projective* potential', along with 'the expansion of a projection'.[21]

There are other musical and rhythmic scenarios that projection has to account for, such as the failure of an anticipated event to materialise, or for the event to arrive early, suggesting variously *anacrusis*, *accelerando* or simply an instance of mistiming, or again such cases as hiatus or notes that endure beyond a single pulse.

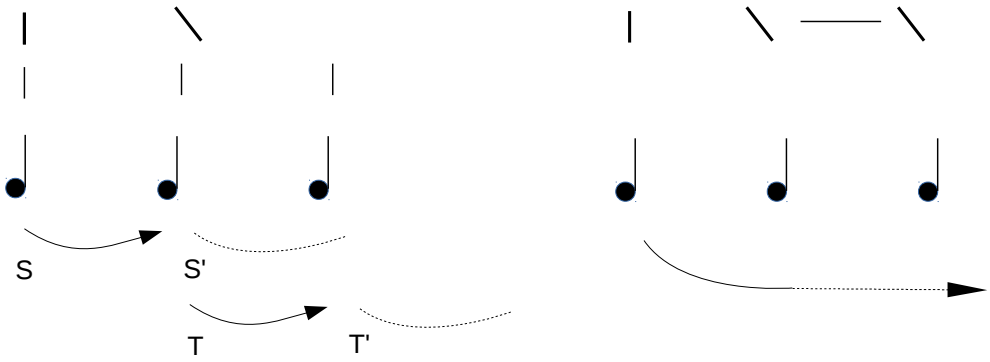


Figure 3.3: Hasty's illustration of the projection of triple metre.
Deferred continuation is indicated by the dash-backslash (– \), Metre as Rhythm, 134

20 Ibid., 134.
21 Ibid., 133.

Much of Hasty's account of projection is dedicated to working through these various contingencies.[22]

So considered, metre is the active process of construction of a temporal framework for the realisation of musical events. As Hasty puts it, metre *is* projection.[23] Yet, the framework of metre is not generated by grouping reiterated pulses (or virtual beats) of equal duration, but is rather a hierarchically nested complex of active and concurrent projections.[24] Consequently, metre and rhythm coincide. Rhythm is expressed through sounded musical events that are metrically and dynamically organised through and within the framework of projections. The corollary of the claim that metre is projection is that metre *is* rhythm: in their temporal unfolding (metrically ordered) rhythm and metre are morphologically identical. By conceiving of metre in these terms, Hasty's claim is to have retrieved a sense of metre as directly implicated in the subjectively sensuous experience of rhythm.

3.1.2: Implications of metric projection for the understanding of timing nuances

A commitment to Hasty's theory of metric projection has certain consequences for the understanding of how timing nuances work in relation to pulse. Although Hasty does consider certain forms of expressive variation, the question of processual discrepancies is not addressed. In his discussion of syncopation, Hasty does allow for the possibility of 'virtual beats', particularly in performance where, for example, 'if the tempo is slow, we may be inclined to subdivide... [a] measure'.[25] However, in

22 See ibid., chap. 8.

23 Ibid., 91.

24 See ibid., 116–118.

25 Ibid., 152. All the same, his view is that '[h]aving developed both a capacity for comprehending relatively long projections and a keen sensitivity to durational relevancies, an experienced performer does not have to imagine the pulses that are often indicated in metrical analyses'.

Hasty's examples, these beats are virtual by virtue of the absence of sounded event. Where a sounded event occurs, metre is defined through its relationship as projective counterpart: consequently, at the micro-timed level, pulse always temporally coincides with rhythmic sound, which is to preclude the possibility of sounded beats pushing or pulling against the pulse. Rather, the idea of processual discrepancies implies that pulse itself is pushed and pulled, or again 'contracts' and 'expands' in relation to an underlying durational constant.

The issue does not arise simply in relation to Hasty. To recall, Doffman's research involves measuring the timing profiles of jazz trios performing in a live environment, and then a subsequent analysis and comparison of the relative timing behaviours of the respective musicians. Part of his analysis involves establishing the deviation of individual musicians from the pulse, yet when recording in a live performance situation '[t]here is no metronome against which this subtlest of shifts can be measured'.[26] Consequently, the assumption that pulse is a virtual structure, an unsounded yet regularly recurring point of temporal orientation comes into question: in the absence of a regulative mechanical or digital device to overtly state the pulse, the tempo inevitably varies, and to varying degrees.[27] The problem posed is deciding upon the appropriate method for measuring the tempo. Doffman's response is to assume that the pulse is consistent over a specific number of measures (typically eight), and that the tempo is determined as a mean value over that period.[28] The mean will itself vary depending on how many measures are chosen to divide across. In short, a consistent, regular and absolute value for tempo can only be given with respect to a specified sequence of measures. Consequently, the value of the micro-

26 Doffman, 'Feeling the Groove', 180.

27 Ibid., 190–193.

28 Ibid., 237–238.

timed deviations from the pulse are contingent upon the number of measures used to determine the mean value for the duration of the pulse.

The question of the status of metric pulse is also addressed by Danielsen in her analysis of the song 'Left and Right'.[29] Danielsen compares three competing metric models, and their ability to accommodate the 'the discrepancies in the location of pulse between the different layers of rhythm'.[30] The 'metronomic model' assumes that the internal beat is consistent and regular, and that typically the rhythmic patterns can only be referenced against one internal beat. Consequently, the track suggests the possibility of multiple internal beats competing to orient the perceptual process.[31] An alternative to the metronomic model is the 'local time shift model', where the idea is of 'a flexible, self-regulating system that recognizes the difference between (1) adjustments in global tempo, and (2) local timing variations that should be subsumed by a larger unit'.[32] Consequently, pulse 'transforms into a dynamic musical feature that is both open to local variations *and* governed by a global tempo'.[33] In effect, local time shifts offer an alternative way of interpreting Wesolowski's horizontal displacements.[34] Danielsen's third option, the 'beat bin model' posits the possibility of a 'rhythmic tolerance' on the part of the listener, which 'would concern, for example, how large the actual distance between structurally simultaneous sounding events can be without appearing out of time'.[35]

29 The song is taken from the album Voodoo (Virgin 2000) by the American singer, composer and musician D'Angelo. Danielsen, 'Here, There and Everywhere', (2010).

30 Ibid., 25.

31 Ibid., 21–26.

32 Ibid., 26.

33 Ibid., 27, (emphasis in original).

34 See page 31.

35 Danielsen, 'Here, There and Everywhere', 30.

That is, the model suggests that ‘pulse is no longer a series of points in time, because each beat is thought to have both a shape and a duration’.[36] Danielsen concludes:

> Whichever way we imagine it, a groove like ‘Left and Right’ (and a lot of other hip-hop and contemporary r&b grooves) puts significant pressure on a traditional conception of pulse as a series of points in time, and on the tendency to assume that the internal beat takes the form of isochronous pulsation.[37]

As should be clear, Hasty’s conception of metric projection is itself a repudiation of the idea that pulse consists in ‘a series of time points’. Moreover, the perspective of metric projection allows for the possibility of the contraction and expansion of pulse within the metric envelope, as implied by the local time shift model, and also for the counting out of internal beats where no sounded event actually occurs (i.e., for the possibility of positioning sounded events with reference to a metric grid). Again, the idea of the beat bin model, which allows for pulse to have a durational width, is feasible from a projective perspective. In short, the local time shift and beat bin models would allow metric projection to accommodate processual discrepancies, where beat and pulse coincide as pulse is contracted and extended within the metric envelope. Moreover, Hasty's theory permits us to retain the idea of an unsounded, internal pulse (or beat). This is not to imply that metre is the accented grouping of pulse, but rather that pulse and its subdivisions can be incorporated as recurring unsounded virtual events within a projective framework. Consequently, depending on the context, and also the perspective of the listener, metre may strictly coincide with sounded rhythm events, or again, appear as a recurring metric pulse that overlaps with sounded rhythmic gestures.[38]

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36 Ibid., 33.

37 Ibid., 34.

38 In Part Three of the thesis I explore these implications of a commitment to metric projection in relation to Roholt’s idea that the experience of groove involves ‘tensions against a norm’, and also to the issue of a shared sense of metric pulse.

3.1.3: Metric projection and process philosophy

In order to conceptualise duration as arising from within temporal passage, Hasty draws upon the 'process philosophy' of Alfred North Whitehead, in particular Whitehead's analysis of 'becoming'.[39] For Hasty, the resort to a process-oriented perspective is intended to contrast with the 'doctrines of psychological atomism, mechanism, and structuralism (including many forms of "post-structuralism")',[40] which assume a spatialised and static interpretation of time. Hasty describes his appropriation of Whitehead in detail. Here, I present a schematic summary of Hasty's principle points.

Hasty notes the impossibility of being aware of the entire duration of an event within an instantaneous moment, observing that to be aware of duration implies that we traverse a line that connects an event's beginning and ending; that is, we experience an event's duration in its becoming.[41] Thus, for an event to be present implies that it is in 'the process of becoming complete... [as] the particular event that it will eventually *be*'.[42] Hasty makes certain stipulations concerning the relationship between an event and its beginning and ending. He notes that beginning is durationless, although 'it is not something apart from duration',[43] and argues that a beginning is nonetheless an intrinsic part of an event, as it functions 'to make the growth of duration possible' and 'must also participate in the indeterminacy of becoming'.[44] Although strictly speaking a beginning is past when an event has begun, for Hasty, beginning is still present until the event is itself complete. Similarly,

39 Hasty, *Meter as Rhythm*, 69; See Whitehead, *Process and Reality*, chap. X.
40 Hasty, 'Just in Time for More Dichotomies', 275.
41 Hasty, *Meter as Rhythm*, 69.
42 Ibid., 72.
43 Ibid.
44 Ibid., 73.

ending is nothing in itself, but rather is 'the fulfilment [and annihilation] of an event's potential for becoming', and also establishes the potential for a new beginning.[45] Thus, a beginning signifies a future potential that is indeterminate, the past relates to what is actual, determinate and complete, while the process of becoming 'involves both the determinacy of having begun and the indeterminacy of being as yet incomplete'.[46] Thus, a duration that is to serve as a projective potential is one that has become determinate and is now actual and past. By virtue of being a determinate duration, it can be reproduced as a projective realisation, again through the process of becoming.

Whitehead's philosophy is a metaphysical perspective that encompasses both events and the subjective awareness of them.[47] Hasty works within this perspective, and identifies the temporal modalities with conscious awareness. Beginning (and end) are described as 'decisions', a 'definite and irrevocable act';[48] the present encompasses the influence (i.e., implies an awareness that involves memory and anticipation) of what is past along with the potentiality of what is to follow.[49] He describes 'now' as a 'feeling for growth',[50] a 'perspective on present becoming',[51] the 'present awareness of an event's becoming',[52] and also a 'condition for freedom of action and... for feeling rhythm'.[53] In effect, his ideas amount to a philosophy of time-consciousness; a description of the phenomenal awareness of duration as it unfolds in temporal passage, and a clarification of the relationships between certain temporal

45 Ibid., 74.
46 Ibid., 72.
47 Whitehead, *Process and Reality*, chap. X.
48 Hasty, *Meter as Rhythm*, 73, 74–75.
49 Ibid., 76.
50 Ibid., 72.
51 Ibid., 77.
52 Ibid., 76.
53 Ibid.

modalities. Similarly, the ability to judge temporal duration and anticipate the timing of future events is described in terms of the process of becoming, and accordingly involves this conscious awareness of 'now'.

Hasty's development of a subjectively-oriented process of becoming into his conception of metric projection is coherent and plausible. However, in certain respects it is problematic. In particular, he does not explicitly acknowledge, nor clarify his understanding of, the distinction between objective reality and experience. This leads him to make seemingly paradoxical claims; for example, that a beginning is both past and present as an event unfolds. In identifying temporal modalities with the conscious awareness of them, Hasty appears to collapse the distinction between the objective occurrence and the subjective experience of time. Moreover, the interconnectedness of the temporal modalities, along with the horizonal understanding of 'now' which he sets out to clarify, is itself simply assumed. The same applies to the sense of time passing, which is presupposed by the process of becoming. Consequently, he falls short in providing an understanding of how duration becomes manifest to (i.e., is constituted for) conscious awareness. Significantly, he notes that a beginning becomes increasingly past, but doesn't take up the import of this fact, nor attempt to account for it.[54] Although projection presupposes a processual account of a subject situated within the passage of time (in the process of becoming), Hasty does not offer a substantive explanation of how the conscious awareness of temporal passage is constituted, nor any developed sense of the structural character of intentionality. In these respects, his account calls for further theoretical development.

54 Ibid., 72.

3.2: Temporal coherence

> Naturally, we all know what time is; it is that which is most familiar. However, as soon as we make the attempt to account for time-consciousness,... [to] gain an understanding of how temporal Objectivity... can be constituted in subjective time-consciousness... we are involved in the most extraordinary difficulties, contradictions and entanglements.[55]

In the chapter, 'The Perception of Time' in *The Principles of Psychology* (1983), William James takes up the issue of what I will term, for the sake of brevity, 'temporal coherence'.[56] Consider examples suggested by Gallagher and Zahavi, the case of listening to a tone or a melody, or watching a bird in flight,[57] or again, listening to a spoken sentence. In each case, the object of perception is experienced as a unified entity. Yet, the question may be asked that if all we ever directly experience is the present moment, and given that the past is no more and the future is yet to be, how is it that we are able to experience past, present and future as a coherent unity? Moreover, how is it that consciousness itself, of the world and events within it, is also experienced as being temporally extended? These considerations also bear upon our perceptions of relatively static objects that we encounter in the world, as these can only appear in profile from a certain perspective. Our sense of an object as having depth and fullness depends on our having an implicit awareness of other perspectival appearances and profiles, where these necessarily have been given in the past or will appear at a future moment.[58] These types of observation lead Husserl to remark that '[e]xternal perception is a constant pretension to accomplish something that, by its very nature, it is not in a position to accomplish'.[59] Both of these issues, how we perceive events as coherent, structured, intelligible and unified

55 Husserl, *The Phenomenology of Internal Time-Consciousness*, 21–22.

56 See also Gallagher and Zahavi, *The Phenomenological Mind*, 69–70; Sartre, *Being and Nothingness*, 130.

57 Gallagher and Zahavi, *The Phenomenological Mind*, 72.

58 See Zahavi, *Husserl's Phenomenology*, 80.

59 Husserl, *Analyses*, 39.

through the course of time, and how we come to perceive an object beyond its immediate appearance, in its concrete unity, are key motivations for Husserl's investigations of time-consciousness.[60]

Somehow, we are able to overcome the limitation of only having direct perceptual access to the 'now' of the present, and necessarily so. For (the object of) experience to be intelligible, the present moment must in some way be referenced against a sense of what has past, along with an anticipation of that which is to follow. As Gallagher states, when perceiving, '[w]hat I see is part of a continuation of, or a contrasting change from what went before'.[61] Henri Bergson argues that in the subjective experience of temporal events consciousness 'refrains from separating its present states from its former states'.[62] Rather, he conceives of succession 'as a mutual penetration, an interconnexion and organization of elements',[63] where past and present states are integrated within a 'pure duration',[64] or *durée*. Put another way, the experience of duration is characterised by an interpenetration of conscious states, so that we hear 'the notes of a tune, melting... into one another',[65] or again, a 'totality of notes' is experienced as a 'living being whose parts, although distinct, permeate one another'.[66] These remarks of Gallagher and Bergson echo Hasty's view that our awareness of the present is influenced by the actuality of what has immediately past, along with the sense of future potentialities. In short, temporal coherence cannot be explained simply in terms of a succession of events. If experience resulted merely from connecting individual moments as if they were 'a string of beads', then '[o]ur

60 Zahavi, *Husserl's Phenomenology*, 80–83.
61 Gallagher, *Phenomenology*, 105.
62 Bergson, *Time and Free Will*, 100.
63 Ibid., 101.
64 Ibid., 104–105.
65 Ibid., 100.
66 Ibid., 101.

consciousness would be like a glow-worm spark, illuminating the point it immediately covered, but leaving all beyond in total darkness'.[67] As there is nothing intrinsic to any particular moment that connects it to preceding and successive moments, we could only be aware of the present instant.[68]

3.2.1: The specious present, cognitive paradox and primordial association

For William James, the answer to the problem of temporal coherence lies with the concept of 'specious present'. James attributes the term to E. R. Clay (E. Robert Kelly), who employed it to distinguish the present of experience—which is 'really a part of the past'—'from the co-terminous of the past and future which philosophy denotes by the name Present'.[69] Following Clay, James describes the specious present as a 'duration-block', comprised with a 'bow' and a 'stern' that face respectively towards future and past,[70] with the past, as it were, being drawn in the wake of the present. He asserts that the relation of succession is perceived as parts of the interval of duration which itself is felt as a whole.[71] The immediately lapsed moments of the melody, or the experience of the bird in flight, are held within the specious present along with the present moment. That is, memory-images or past sensation are synthesised with the immediately experienced now into a 'unit of composition',[72] which is also described as a 'sensed' or 'intuited' duration.[73] As such, the specious present is an invariant form that 'stands permanent, like a rainbow on the waterfall' within an ever changing flux of events.[74]

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67 James, 'The Perception of Time', 573.
68 Zahavi, *Husserl's Phenomenology*, 82.
69 Clay, *The Alternative: A Study in Psychology*; cited in James, 'The Perception of Time', 574.
70 James, 'The Perception of Time', 574.
71 Ibid.
72 Ibid.
73 Ibid., 593.
74 Ibid.

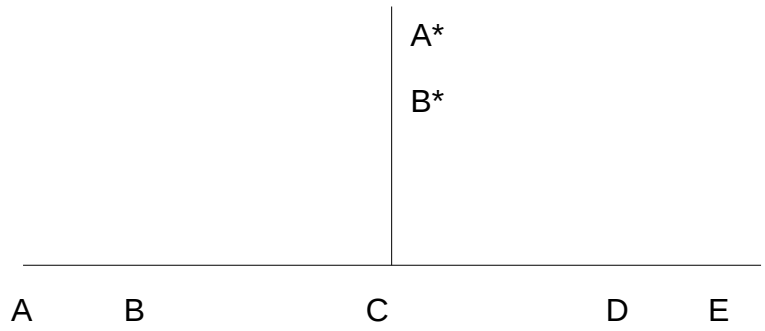


Figure 3.4: Gallagher's image of James' specious present.
(Reproduced with permission from Shaun Gallagher, The Inordinance of Time, 14.)

James explains that past or remembered sound are present within the duration block of the specious present (represented in figure 3.4 by the vertical line) as 'a sort of perspective projection of past objects upon present consciousness, similar to that of wide landscapes upon a camera-screen'.[75] He talks about an awareness of past events being present to memory, and also 'our feeling of the time which is immediately-past' which he attributes to 'processes' that have been 'left behind',[76] although he never states that past moments present themselves within the specious present as sensation, sense-data or sensible qualities. It cannot be denied that, if experience is to be intelligible, awareness must encompass past and future horizons (as Bergson implies, and Hasty also argues), yet no further explanation is provided of how this awareness arises, or is structured, such that a 'sensed' or 'intuited duration' arises. As Gallagher argues, rather than being an insight that explains the coherence of experience within time, the specious present is a description of the phenomena in need of explanation.[77] Partly, this is because James fails to clarify the relationship between perceived duration and the duration of perception: as Wilhelm Stern argues,

75 Ibid.
76 Ibid., 603.
77 Gallagher, *The Inordinance of Time*, 26, (1998).

perceived duration (the specious present, or *Zeitstrecke*) must be explained in terms of the duration of perception (*Präzenseit*), which itself requires explanation.[78]

James relies on two assumptions, that in conjunction are problematic. These assumptions were first articulated by Hermann Lotze:

- The perception of succession requires a momentary and indivisible, and therefore durationless act of consciousness.
- A sequence or succession is represented in the momentary act of consciousness by persisting sensations or memory-images.[79]

Taken together these assumptions imply that successive moments are experienced as occurring simultaneously, a problem that Gallagher terms the ‘cognitive paradox’ of temporality.[80] Attempts have been made to articulate the coherence of temporal experience that avoid the paradox. Lotze, for example, adopted a 'theory of temporal signs' for sensed content of experience,[81] while C. D. Broad and Clement Mundle have attempted to retain the notion of specious present by modifying James' account in such a way that does not rely on the first assumption that perception of succession occurs as a momentary act of consciousness (see figure 3.5).[82] However, neither of these attempts have satisfactorily resolved the problems involved.[83]

78 Ibid., 35; Stern, *Psychlogie Der Veränderungsauffassung*.

79 Lotze, *Metaphysics in Three Books*; see also Gallagher, *The Inordinance of Time*, 21–22; Husserl, *The Phenomenology of Internal Time-Consciousness*, 40–44.

80 James was apparently aware of the paradox involved in his account of the specious present, but was all the same happy to live with it, describing the assumption that successive moments are perceived simultaneously within an instantaneous moment as ‘a simple description of time perception’. James, ‘The Perception of Time’, 632; Gallagher, *The Inordinance of Time*, 21–22.

81 Gallagher, *The Inordinance of Time*, 21.

82 See ibid., 23–26; Broad, *Scientific Thought*; Mundle, ‘How Specious Is the “Specious Present”?’

83 Gallagher, *The Inordinance of Time*, 25–26.

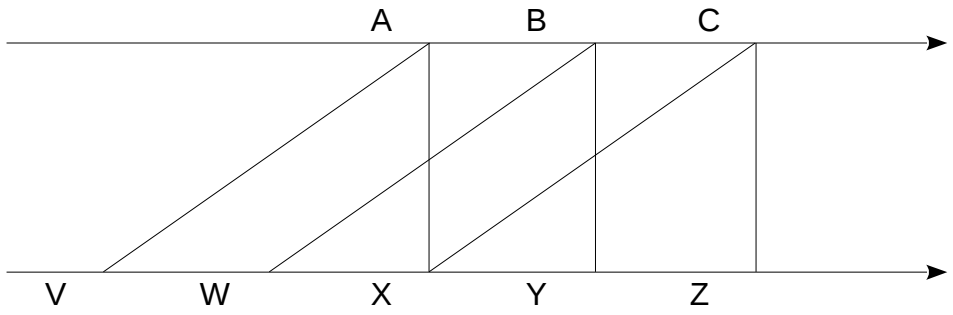


Figure 3.5: Broad's diagram.

At moment A the specious present appears as the time segment VX, and at B the segment WY. The overlapping segment WX is present at both A and B. The segment A-B is taken to represent an enduring act of consciousness. Gallagher, The Inordinance of Time, 24.

Husserl initiates his phenomenological investigation of time-consciousness on the basis of a critical interpretation of Brentano, whose account of temporality is reviewed by Husserl in *The Phenomenology of Internal Time-Consciousness* (1964). As cited by Husserl, Brentano rejects the idea that enduring perception or sensation is the result of present sensation conjoined with a persistent memory (experienced as sensation) of the just-past. Brentano suggests that in moving from now to the past, every sensation is transformed into an 'idea' or 'fantasy', at the same time exhibiting an indication of its temporal position.[84] The previously sounded note, or movement of the bird in flight, as a present experience of consciousness, becomes an idea of a sound or movement held in memory, as an experience that is now just-past. Imagination concurrently projects an idea of future events on the basis of what is remembered.[85] Thus, a momentary act of perception of the present is accompanied by an act of memory directed towards the transformed sensation, and an act of expectation towards the future also experienced as an idea or fantasy.[86] A sense of succession or temporal passage is then brought about by a process of synthesis, the

84 Husserl, *The Phenomenology of Internal Time-Consciousness*, 32–33.

85 Ibid., 33.

86 Gallagher, *The Inordinance of Time*, 39–40.

'continuous joining of a temporally modified idea', which Brentano terms 'primordial association'.[87]

As Brentano acknowledges, his account implies that as sensation is transformed into an idea, the perception of succession is illusory. We do not really perceive the unfolding melody or flight of the bird in time, we only imagine that we do by virtue of the 'vivacity of primordial association'.[88] Husserl describes this implication as 'very questionable'.[89] For Husserl, it is self-evident that we do perceptually experience objects and events in the world as they occur through the passage of time, and he insists that the hearing of a melody, or any perception of a temporal object or process is a 'present and real and lived experience' that necessarily endures.[90] However, he does agree with Brentano in rejecting the idea that time-consciousness is a matter of holding immediate past sensations in memory. Husserl rejects any understanding of perception of the just-past in terms of a 're-presentation' and synthesis, whether of sensory contents or contents modified into fantasy.[91] He also holds that Brentano's account offers no indication of how modified content of memory or anticipation can be distinguished from the perceptual content of the present moment. On the one hand, if the elements of primordial association are to be understood as *actual* times, or successive moments, then we are back with a form of the cognitive paradox, as 'all these moments... are enclosed in the same consciousness of objects', and therefore simultaneous.[92] On the other, if they are merely temporal *signs* of past moments, then this is merely a linguistic move that

87 Husserl, *The Phenomenology of Internal Time-Consciousness*, 33.

88 Ibid.; Zahavi, *Husserl's Phenomenology*, 82.

89 Husserl, *The Phenomenology of Internal Time-Consciousness*, 39; Gallagher, *The Inordinance of Time*, 40–41.

90 Husserl, *The Phenomenology of Internal Time-Consciousness*, 39.

91 Ibid., 68; Gallagher, *The Inordinance of Time*, 40.

92 Husserl, *The Phenomenology of Internal Time-Consciousness*, 39.

offers no meaningful understanding of how consciousness of the past comes about through past experience.[93]

3.2.2: Husserl's structure of internal time-consciousness

The most extensive treatment of time-consciousness offered by Husserl is to be found in *The Phenomenology of Internal Time-Consciousness* (1964).[94] As should be clear, the subject of time-consciousness is both complex and paradoxical, and Husserl's presentation of his thoughts on the matter are typically intricate and convoluted. Nonetheless, a relatively accessible way of understanding Husserl is through consideration of two interrelated temporal phenomena. The first of these is the sense of a given moment receding into the past, or 'temporal fading'. We can illustrate what is meant here by considering how, when we clap our hands, the sound of the clap seems to disappear into the past—that is, not as an echo, or a fading sound, but as a moment that is immediately followed by silence, yet continues to appear to depart into the past.[95] The other phenomena is an event's being extended in time, or 'temporal duration'.[96] Husserl's treats these phenomena within the theoretical framework of the structure of internal time-consciousness.

93 Ibid.; Gallagher, *The Inordinance of Time*, 41.

94 The publication consists in manuscripts which were compiled and edited by Edith Stein and Martin Heidegger. It was translated into English by James Churchill. A revised translation by John Brough, which has been supplemented with additional texts has been published under the title, *On the Phenomenology of the Consciousness of Internal Time*. Husserl's later texts on the subject of time-consciousness have been compiled and published in German—*Die Bernauer Manuskripte* (the *Bernau Manuscripts*), and *Die C-Manuskripte* (the *C-Manuscripts*)—and have not yet been translated into English, although they have been discussed extensively in the secondary literature. Husserl also develops and applies his ideas in his discussions of active and passive consciousness in *Analyses*.

95 Mensch, 'Husserl's Account of Our Consciousness of Time', 88, 156, 159, (2010).

96 Ibid., 89.

Figure 3.6: Primal impression

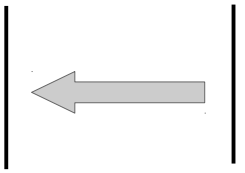


Figure 3.7: Retention

Husserl accepts the view that perception is characterised by a specious present, or 'width of presence', and acknowledges Wilhelm Stern's view that 'the perception of duration itself presupposes duration of perception'.[97] His analysis of time-consciousness begins with the assumption that the ‘now’ of the present moment is all that really exists, so that in terms of our awareness all we have at a primary level is (present) appearance, which is 'the basis of all constitutive processes, including those that constitute our sense of time'.[98] This appearance is identified as 'primal impression' (figure 3.6),[99] which originates from beyond consciousness as a ‘source-point’,[100] meaning ‘that which has been received, as opposed to what has been produced through consciousness’s own spontaneity’.[101] Husserl attends to an impression under the condition of the phenomenological reduction, which is to say that attention is directed purely towards the experience of a temporal phenomenon and presuppositions concerning the experience are suspended or ‘bracketed’ (see section 4.1).[102] Under this condition, if we put to one side the tendency to position the presence of an appearing impression between the past and future, it is evident that

97 Husserl, *The Phenomenology of Internal Time-Consciousness*, 42; Zahavi, *Husserl’s Phenomenology*, 82.

98 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 160.

99 Husserl, *The Phenomenology of Internal Time-Consciousness*, 50.

100 Ibid.

101 Husserl, *On the Phenomenology of the Consciousness of Internal Time*, 106. See Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 87–88.

102 Husserl’s examples are typically a melody or enduring tone.

primal impressions continually appear, only to be displaced by further impressions that supersede them. That is, focusing purely on the ‘now’ of the present moment, all we have are ever changing impressions—or 'sheer alteration'.[103] As indicated earlier, if our awareness were simply of primal impressions in the punctual 'now', then it would be impossible to perceive anything as enduring in time or fading into the past.[104]

As we have seen, the issue is the manner in which consciousness is able to go beyond the immediate present. For Husserl, our awareness of the past originates through a passive process of consciousness that modifies an impression so as to present it as fading or departing into the past. Crucially, this modification is not experienced as a sensory impression or idea that is still present to consciousness, but *results precisely in the impression being given as now past*, as a 'consciousness of *what has just been*'.[105] Husserl refers to this process of modification as 'retention' (figure 3.7), where retention is understood as a past-directed *intentionality*; a 'holding fast' of impressions, so that we might understand retention as a form of memory.[106] In fact, Husserl describes retention as a ‘primary memory’, as distinct from memory understood as recollection.[107]

If we consider the process abstractly and sequentially, an impression appears, then is displaced by a further impression, so is no longer present as impression, but is nonetheless held in modified form as a retention—as it were, it is pushed back into the past.[108] In the next instance, the displacing impression is itself displaced by a

103 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 98–99.
104 Zahavi, *Husserl’s Phenomenology*, 82.
105 Husserl, *The Phenomenology of Internal Time-Consciousness*, 53–54, (emphasis in original).
106 Gallagher, *The Inordinance of Time*, 47–48.
107 Husserl, *The Phenomenology of Internal Time-Consciousness*, 53, 57–59.
108 Ibid., 50–52.

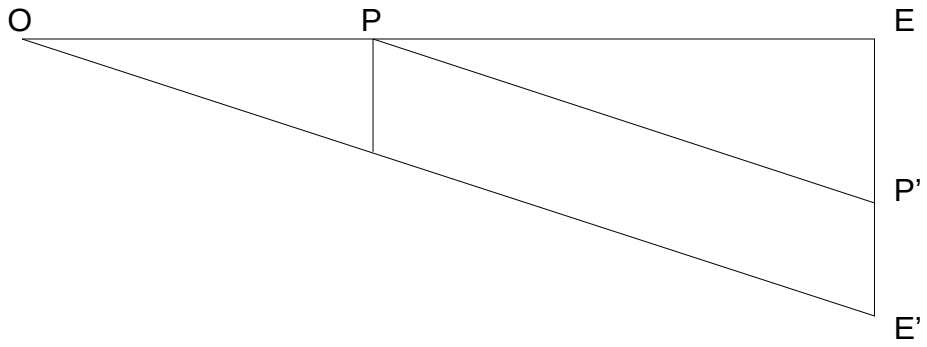


Figure 3.8: Husserl's diagram of the structure of internal time-consciousness.

Husserl describes OE as representing a 'series of now-points', OE' as the 'sinking down' of modified impressions, and EE' as a 'continuum of phases (now-point with horizon of the past)', Husserl, The Phenomenology of Internal Time-Consciousness, 49.

further impression, and so pushed back as a modified retention. What of our original impression, already modified, already pushed back? Husserl argues that it is pushed back again, which is to say that it modified as the retention of a retention.[109] Consequently, we have a continual procession of impressions being displaced and pushed back as retentions, which are then again reiteratively modified, and so become manifest as ‘running-off phenomena’ (indicated in figure 3.8 by the line OE’).[110] This results, in the manner of a set of Russian dolls, in a nested sequence of retentions, or a 'retentional continuum' (figure 3.9).[111]

Husserl's view is that this continual modification of a retained impression, and the resulting ongoing production of retentions within retentions, which is indicated as r(r(A)), provides us with a sense of an individual moment receding into the past; that is, of temporal fading (figure 3.10). Husserl describes this awareness as a 'longitudinal' (or again 'lengthwise' or 'horizontal') 'intentionality'.[112] The retentional

109 Ibid.

110 See ibid., 48–50.

111 Gallagher, *The Inordinance of Time*, 50–51.

112 Husserl, *The Phenomenology of Internal Time-Consciousness*, 107–108; Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 148–150; Gallagher, *The Inordinance of Time*, 50–51.

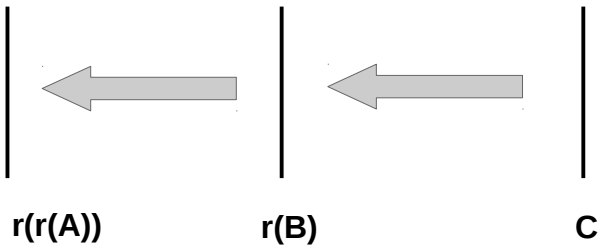


Figure 3.9: Retentional continuum

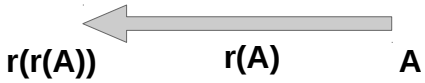


Figure 3.10: Temporal fading

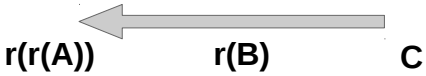


Figure 3.11: Temporal duration

chain also provides us with a sense of objects and events as enduring in time. If we look along the retentional chain, we find we have a succession of retained impressional moments, each of which having followed a previous impression, and each of which is followed by a subsequent impression. Taken together, this succession of impressional moments provides us with the sense of an enduring object or event,[113] where the reiterated retention of each successive moment preserves their temporal order (figure 3.11).[114] Thus, the retentional continuum provides us with a sense of a moment fading into the past; and also, through a 'transverse intentionality' ('Querintentionalität'), a succession of impressional moments as enduring in time: this dual awareness of fading and enduring is described by Husserl as a 'double intentionality'.[115]

Our anticipations and expectations of the future are projected through a further process of consciousness, which Husserl describes as protention.[116] This

113 Husserl, *The Phenomenology of Internal Time-Consciousness*, 108; Mensch, 'Husserl's Account of Our Consciousness of Time', 151–152; Gallagher, *The Inordinance of Time*, 50–51.

114 Zahavi, *Husserl's Phenomenology*, 84–85.

115 Husserl, *The Phenomenology of Internal Time-Consciousness*, 105–110, 157–160; Gallagher, *The Inordinance of Time*, 48–50.

116 Husserl, *The Phenomenology of Internal Time-Consciousness*, 110–111. Husserl has relatively little to say on the subject of protention in *The Phenomenology of Internal Time-Consciousness*.

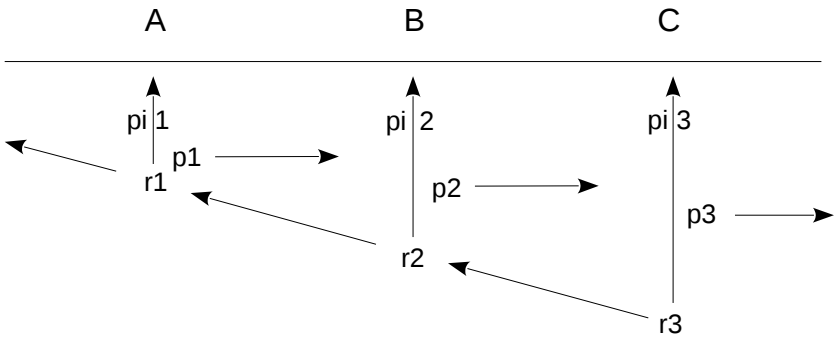


Figure 3.12: Brough's modified diagram of Husserl's structure.
Gallagher, The Inordinance of Time, 50.

projection forward is itself largely based on past experience, which is to say that the actual expectation that is projected by protention (the 'content' of protention) is itself determined by retained experience (the content of retention).[117] Through protention, whose specific content is founded upon our retained experience of the immediate past, certain anticipations are set up as to how the future will unfold; as Merleau-Ponty describes, ‘my world is carried along by intentional lines [protentions] that trace out in advance at least the style of what is about to arrive’.[118]

Husserl's supposition is that protentions accompany impressional moments, as do retentions. At any specific moment they are unified, in an abstract sense, as a 'phase point', and it is the entire phase point that is retentionally modified, and experienced as fading into the past.[119] If we consider John Brough’s diagram (figure 3.12), at moment C the impressions, retentions and protentions of the earlier time points A and B are all held within the retentional continuum that extends from r3: r3 retains the phase-point r2-pi2-p2, and similarly r2 retains r1-pi1-p1. Consequently,

His more developed ideas appear in the *Bernau Manuscripts* and *C-Manuscripts*.

117 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 128.

118 Merleau-Ponty, *Phenomenology of Perception*, 2012, 439.

119 Gallagher, *The Inordinance of Time*, 50. Thus, our starting point is something of a simplification, as primal impressions never appear in isolation, but rather always appear with retentions and protentions as co-constituents of phase-points.

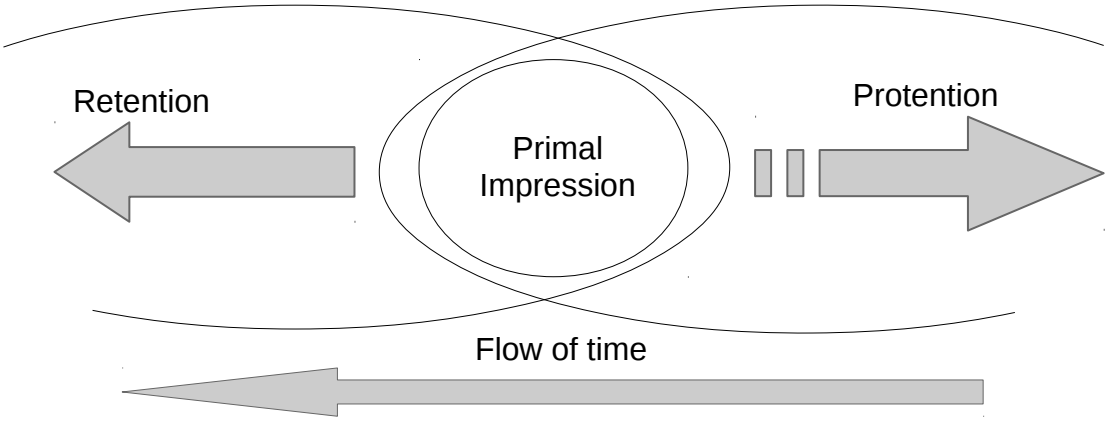


Figure 3.13: The living present.

we have a complex inter-relation between impression, retention and protention, by and through which we anticipate what we will come to remember,[120] and remember what we have previously anticipated.

Husserl argues that out of the interplay within the structure of primal impression-retention-protention we gain the sense of a flow of events within time (see figure 3.13). In the first (constitutive) instance we have primal impressions; then retention contributes the sense of these impressions continually departing into the past; on this basis protention projects a trajectory of events as 'appearing from' (the horizon of) the future, so that the processes of retention and protention effectively situate the impressions as appearing 'now', which is to say in the sense of being centred between past and future. The outcome is that the impressions appear to 'flow' from future to past by way of the present moment, and Husserl describes this experience of the flow of events as a both standing, yet continually streaming, 'living present'.[121]

120 This particular point requires further elaboration, as it rests upon the supposition of a 'protentional continuum'. I discuss this further in Chapter 7.

121 See Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 157–159; Gallagher, *The Inordinance of Time*, 78–79.

A significant and distinctive feature within Husserl's conception is that appearances *precede* time.[122] Conventional wisdom assumes the opposite: Hasty, for example, argues that absolute time is independent of, and logically precedes, events that take place in time.[123] Rather than assuming a framework of time, and then seeking to describe how phenomena appear within that framework, Husserl explains time-consciousness in terms of constitutively prior appearances of impressions; that is, 'in terms of our consciousness of things changing'.[124] As Merleau-Ponty remarks, '[t]ime presupposes a view upon time',[125] so that we should 'no longer say that time is "a given of consciousness," but rather, more precisely, that consciousness unfolds or constitutes time'.[126] This inversion leads Husserl to assert that the time-structuring processes are 'objectivities other than those constituted in time'.[127] Primal impression, retention and protention are conceived as *constituting* time: they are the necessary structuring principles by which we come to an awareness of time, and as such cannot be temporal: if they were this would leave the question of how they themselves become constituted.[128] As time-constituting processes, impressions, retentions and protentions do not appear in any temporal or successive order, nor can they properly be said to occur at the 'same time'.[129] Further, they do not have any causal impact, at least not in the sense that physical and material objects and processes do. At a basic constitutive level, all we have are impressions, and the processes of retention and

122 Mensch, 'Husserl's Account of Our Consciousness of Time', 160–161.

123 Hasty, *Meter as Rhythm*, 70.

124 Clifton, 'Music as Constituted Object', 84.

125 Merleau-Ponty, *Phenomenology of Perception*, 2012, 433.

126 Ibid., 437.

127 Husserl, *The Phenomenology of Internal Time-Consciousness*, 100.

128 Ibid., 99–100; Mensch, 'Husserl's Account of Our Consciousness of Time', 160–161; See also Zahavi, *Husserl's Phenomenology*, 83–86.

129 Strictly speaking, they could not be said to be processes, as this itself presupposes a temporal framework, Husserl, *The Phenomenology of Internal Time-Consciousness*, 99–100; Mensch, 'Husserl's Account of Our Consciousness of Time', 154–155.

protention modify these impressions, bringing us to an awareness of time. Hence the expression, *temporalising consciousness*.

Time-constituting processes do not merely constitute the awareness of time: they open up a temporally-structured field of awareness, enabling consciousness to go beyond what is given in the punctual now. This opening up is aptly described by Merleau-Ponty as a 'dehiscence';[130] a 'rupture' that transforms the atemporality of 'sheer alteration' into a temporal awareness of a structured object or process (a melody, or bird in flight), unfolding within the horizon of the living present. Further, time-constitution permits consciousness to move beyond immediately given perspectives and profiles to a horizonal awareness of objects as transcendent—independent and enduring—entities. Put another way, it permits perception to accomplish that which 'it is not in a position to accomplish',[131] by making possible the perception of objects and events within a temporal horizon.[132]

Husserl, then, aims to account for temporal coherence by offering an analysis in which he proposes a unitary structure composed of three intentional relations, each directed towards a temporal modality. These modalities—past, present and future—are experienced as a unified field, the living present.[133] In Husserl's model, neither past sensations nor memory-images are held within memory as re-presenting the past to consciousness. It follows that the cognitive paradox does not arise as no suggestion arises of a simultaneous perception of successive moments: where '[a] past experience or object is "in the present"… with the status of intended meaning',[134] a just-past moment is not itself present as impression. As Gallagher

130 Merleau-Ponty, *Phenomenology of Perception*, 2012, 443.

131 See page 95.

132 I discuss this more fully in section 7.1.2.

133 Zahavi, *Husserl's Phenomenology*, 84.

134 Gallagher, *The Inordinance of Time*, 54.

explains, ‘the specious present… is a sense of time, but not an actually sensed time’.[135] Yet the specious present, or width of presence, is perceptually real, as is any phenomena that appears within it: the structure of internal time-consciousness does not imply that the perception of temporal events is a mere illusion. Put another way, the perception of an object or event does not simply consist of impressions experienced in the immediacy of the now, but is appresentational:

> The whole melody . . . appears as present so long as it still sounds, so long as the notes *belonging to it*, intended in the *one* nexus of apprehensions, still sound. The melody is past only after the last note has gone.[136]

The perception of the melody goes beyond what is immediately given, to encompass the sense of the melody unfolding as a unified entity within a temporal horizon.

An additional feature of Husserl's model is that it offers a means of clarifying the distinction between subjective and objective time, and also the relationship between them. I have indicated that the phenomena of temporal fading and duration are constituted through the longitudinal and transverse intentionality of the retentional continuum. Husserl describes these intentionalities as inseparable and united, 'requiring one another like two sides of one and the same thing... interwoven with each other in the one, unique flow of consciousness'.[137] He identifies temporal duration, which arises through transverse intentionality, with an 'immanent... objective time, a genuine time in which there is duration and alteration of what endures'.[138] Longitudinal intentionality provides for a sense of a given moment temporally fading into the past, yet this is only a minimal aspect of what is accomplished. Taken together, the continual fading of each impression into the past

135 Ibid.

136 Husserl, *The Phenomenology of Internal Time-Consciousness*, 61.

137 Husserl, *On the Phenomenology of the Consciousness of Internal Time*, 87.

138 Ibid.

is synthesised into a '*quasi*-temporal arrangement of the phases of the flow'.[139] Husserl does not explicitly describe this outcome (the sense of temporal passage) as 'subjective time'. Instead, he argues that:

> The flow of consciousness that constitutes immanent time not only *exists* but is so remarkably and yet intelligibly fashioned that a self-appearance of the flow necessarily exists in it, and therefore the flow must necessarily be apprehensible in the flowing. The self-appearance of the flow does not require a second flow; on the contrary, it constitutes itself as a phenomenon in itself. The constituting and the constituted coincide.[140]

There are two implications to highlight here. First, longitudinal intentionality constitutes an extended act of consciousness—the duration of perception (Stern's *Präsenzzeit*) which is presupposed by perceived duration (*Zeitstrecke*).[141] Second, *the subjective sense of temporal passage is identified with the flow of consciousness itself*: subjectivity is self-constituting precisely through the structure of internal time-consciousness, which is to say it is constituted by, and is itself, the constituting flow of temporalising consciousness; or again as Natalie Depraz remarks, subjectivity is both 'temporalizing *and* temporalized'.[142] Accordingly, subjectivity originates within the process of time-constitution. In particular, the transcendental ego arises as an 'eidetic form',[143] meaning a spatial-temporal centring or the locus of intentional awareness within the 'here' and 'now', which Husserl also refers to as an 'ego-pole'.[144] Put another way, the transcendental (or 'pure') ego exists as an invariant (dynamic, pre-temporal) form within the constitutive flow of time, a *nunc stans*, or 'stationary-streaming' structure, that is constantly 'now', yet whose impressional

139 Ibid., 88.

140 Ibid., (emphasis in original).

141 Gallagher, *The Inordinance of Time*, 51. See also page 99.

142 Depraz, 'Hylectic and Kinetic Facticity of the Absolute Flow and World Creation', 26, (emphasis in original).

143 See Mensch, 'Husserl's Account of Our Consciousness of Time', 172–177.

144 Ibid., 174–176.

content is ever changing.[145] As such, it is identified with the minimal sense of self that exists by virtue of the very structure of experience. By contrast, the mundane ego (or person) exists as a fully constituted sense of selfhood, as having specific social and cultural experiences over the course of time that give rise to a personal self.[146]

3.3: Time-consciousness and metric projection

Husserl's structure of internal time-consciousness provides for a coherent account of the underlying constitutive processes of metric projection. Husserl describes the mechanisms at play as we experience a succession of moments sinking back into the past, that at the same time are realised as an event that endures; i.e., the structure of internal time-consciousness describes the constitutive basis of the process of becoming (in the terms adopted by Hasty). To produce or realise a projective potential means drawing upon both the transverse and longitudinal intentionality of the retentional continuum—the awareness of a beginning departing into the past, along with the growing awareness of the becoming of the duration that results from such fading.

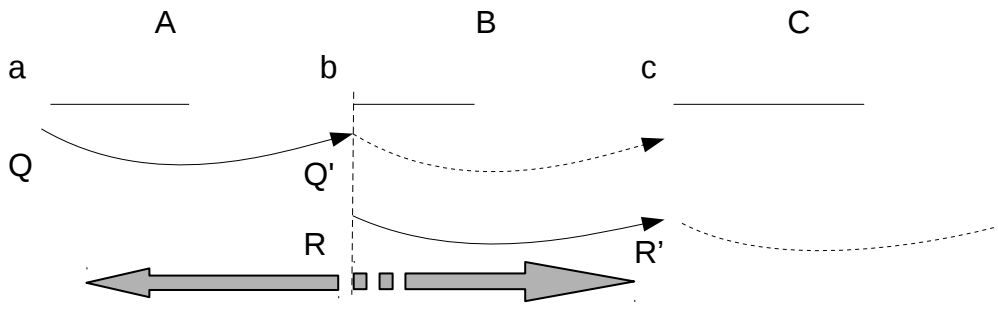


Figure 3.14: Retention and protention at the moment of a new beginning.

145 Ibid., 173–174.

146 Zahavi, *Self and Other*, 82. See page 13.

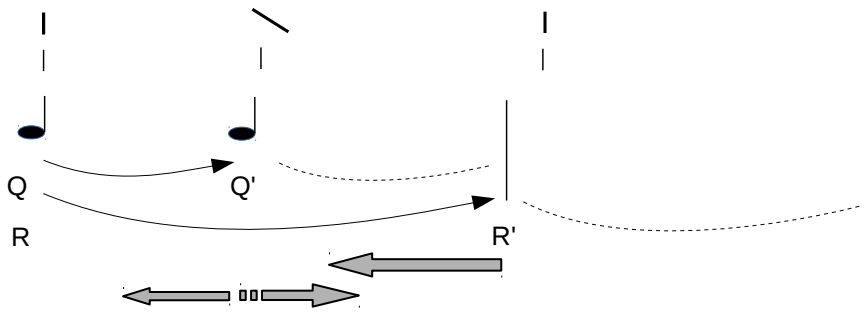


Figure 3.15: Retention of projected duration.
Q' retained as continuation of projective potential R.

If we consider the moment of a new sounded event (i.e., a 'new beginning' indicated by 'b' in figure 3.14) we can take a simplified view of the projective-projected relationship. A constituted duration becomes available as a projective potential Q through retention: at the same moment this potential is constituted through protention as a projected duration Q'. As the process of projection progresses, the projective potential is retained as a specific (temporally fading) duration, so continuing as a reproducible durational extent. This is possible because the double intentionality of the retentional continuum retains a completed temporal event—a 'before-all-at-once'—as temporally fading (being retentionally modified) in its durational entirety.[147] My illustration (figure 3.14) draws a parallel between retention-protention and projective-projected as relationships between founding and founded, but the two only really coincide at the moment of a new beginning. Otherwise, retention and protention are implicated on both sides of the process of projection (see figure 3.15). As described above, retention constitutes a growing sense of duration, yet this is relevant to the realisation of both projective and projected durations, Q' and R. Similarly, protention constitutes the anticipation of a duration, whether as an as yet indeterminate projective potential R that is ultimately realised with the advent of a new beginning, or as the projected potential Q'.

147 Husserl, *The Phenomenology of Internal Time-Consciousness*, 108.

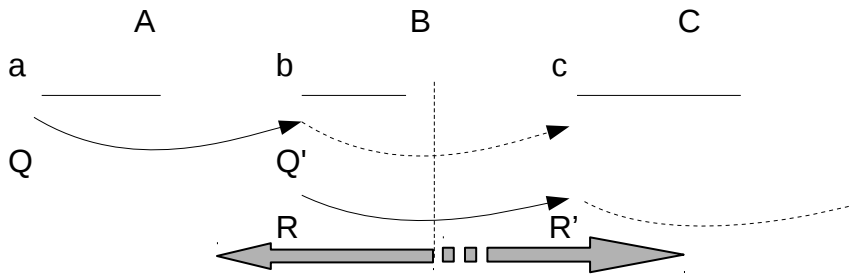


Figure 3.16: Retention and protention in the constitution of projective and projected durations.

Husserl's model of time-consciousness also allows us to capture Hasty's description of metric and rhythmic complexity as the product of concurrent, hierarchically structured projections. The organisation of pulse into metric units of double time is achieved when a projected duration also functions as a 'continuation' of a projective duration (see figure 3.16). Thus, on completion, the larger projective duration R involves a retained sense of a protended moment, i.e., the forward projection of the smaller projected duration Q'.[148] Similarly, triple metre depends upon 'deferred continuation', which is a matter of the forward protention of a projected duration that originates on the basis of both a projective potential T, and the projection pairing S-S' (figure 3.17). To recall, Hasty's position assumes an interpretation of 'now' as encompassing the influence of the past, along with future expectations. This permits him to make the more expansive claim that 'each measure or metrical unit [can] be viewed as a unique projective situation in which uniqueness or particularity arises both from the measure's internal constitution and its assimilation of prior events (and its potential for being assimilated to future events)'.[149]

148 Again, I have chosen to simplify matters by focussing on critical moments within an unfolding complex of projections.

149 Hasty, *Meter as Rhythm*, 149.

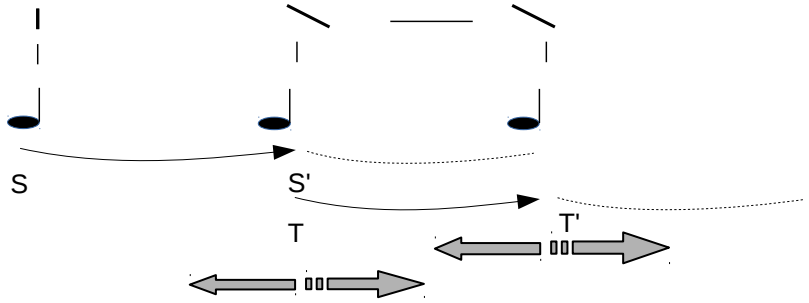


Figure 3.17: Protention of retained projective-projected pair

In essence, Hasty presupposes an awareness of James' specious present, where succession is characterised, as Bergson claims, by the 'mutual penetration... interconnexion and organisation of elements'.[150] This sense of the present as involving an interpenetration of past and futural awareness is captured in a precise manner by the idea that the retentional continuum is composed of a nested sequence of retained *phase-points* (as *per* Brough's diagram, figure 3.12, page 107). As the retentional continuum retains the inter-relatedness of a complex of retentions, protentions and primal impressions, it subtends the capacity to remember prior fulfilled (or otherwise) anticipations. A developed version of Husserl's model also allows for the anticipation of event complexity by virtue of a 'protentional continuum'.[151] Thus, the constitution of complex metrical projection through concurrent projective and projected durations ultimately depends upon a retentional (or retentional-protentional) continuum that is composed of retained (and protended) phase-points.

The foregoing analysis is based on the assumption that the modifying processes of retention and protention not only provide for the sense of events enduring in time, but also for their having a specific, determinate duration—that is,

150 See page 96.

151 As mentioned above (footnote 120), the development of the concept of a protentional continuum is discussed in section 7.2.

of going on for just 'so long'. This specific aspect of duration—the sense of the 'when' of past and future events, as opposed to the 'what' and the 'in what order'—is clearly an important aspect of temporal awareness, particularly with regard to the performance of rhythm. Evidently, the capacity is implied, as the structure of internal time-consciousness is intended to explain how our sense of a melody is constituted, and it is clear that a melody's pattern of durations is intrinsic to that sense. Husserl's discussions on this specific point are oblique. As mentioned above, he does describe a just-past, temporally extended event as an entity that can be grasped as receding into the past in its entirety,[152] and this would itself imply that the duration of the event, as a determinate value, is an intrinsic aspect of what is experienced as temporally fading.

My supposition is that the *specification* of duration as a determinate value is achieved through transverse intentionality, as it is intrinsic to the constitution of temporal duration *simpliciter.* The *possibility* of determinate duration presupposes a feature of longitudinal intentionality which is mentioned in Husserl's discussion of the constitution of simultaneity. Husserl observes that a sound and a colour that occur simultaneously will continue to be perceived as simultaneous, and explains that the reason is that they 'undergo the same [retentional] modifications'. This is because the generation of modifications for the respective impressions 'always proceeds at the same rate'.[153] Moreover, events occurring at different moments will also appear to recede into the past at the same rate: were this not the case 'their temporal order would be scrambled'.[154] Consequently, the sense of a constant, intervening duration between successive events is maintained. It follows that the fact that we can perceive

152 Husserl, *The Phenomenology of Internal Time-Consciousness*, 108.

153 Ibid., 156.

154 Mensch, 'Husserl's Account of Our Consciousness of Time', 92. Retentional modification 'at the same rate' is indicated in figure 3.8, by the fact that the diagonal lines are parallel.

a duration as having an objectively specific value (through transverse intentionality), which is maintained as the sense of its determinate duration as it recedes into the past, rests upon temporal fading (constituted through longitudinal intentionality) proceeding at a 'constant rate'. Put another way, the idea that primal impressions are retentionally modified at a uniform rate is an *a priori* presupposition of the capacity to compare the relative temporal lengths of successive durations.

A final point is that Husserl's structure of time-consciousness provides a theoretical account of the relationship between becoming and subjectivity. The structure of internal time-consciousness presents a deeper phenomenological account of temporality, as both an accomplishment and the realisation of subjectivity (as self-constituting and self-constituted). Moreover, Husserl's model demonstrates how our experience of time is intimately bound up with our own subjectivity, in that he identifies the awareness of temporal passage with the flow of consciousness. The processes that constitute temporal awareness are precisely those that ultimately constitute subjectivity. In this respect, Husserl goes beyond Hasty who simply assumes the (undeniable) fact of subjective awareness and the first-person perspective. In almost all respects, Husserl's position is entirely consistent with Hasty, and permits us to understand projection as motivated by and through the time-constituting activities of consciousness.

3.3.1: Metric projection and entrainment

The approach I have outlined here contrasts with London. In his review of Hasty, London accepts certain ideas on metrical particularity, but rejects the idea that metre arises through projection. As we have seen, he favours an interpretation of metre as 'a

habit of attending',[155] which is based upon the concept of entrainment and Jones' theory of dynamic attending.[156] London challenges Hasty on the grounds of his commitment to process philosophy. In his response to London, Hasty has argued that London is in turn motivated by his own underlying commitment to 'a durationless instant or point of time', which 'appears to be crucial for maintaining a sharp separation of meter and rhythm as conventionally understood'.[157] Ultimately, it appears that the issue between Hasty and London rests upon the matter of whether a tensed or tense-less perspective on time is more appropriate to an understanding of metric awareness.[158] I have argued that the naturalised conception of entrainment that London draws upon presupposes the notion of objective time. However, as noted in section 3.1.3, Hasty's tensed perspective is based on the same assumption; i.e., of an absolute (and presumably tense-less) time that logically precedes becoming. This is one respect in which Husserl and Hasty diverge. For Husserl, objective time (which corresponds with temporal duration) *presupposes* the subjective awareness of temporal passage (which corresponds with temporal fading). Further, although the two senses of time are intrinsically intertwined, as indicated in section 3.2.2, they are both logically (which is to say, constitutively) preceded by the appearance of pretemporal impressions.

The fact of two interrelated senses of time, respectively corresponding to subjective and objective perspectives, permits us to question London's assumption that entrainment and projection present mutually exclusive explanations of metrical awareness. From a purely naturalised vantage-point, it may be the case that the two are incompatible. Yet incorporating metric projection within a phenomenological

155 London, ‘Hasty’s Dichotomy’, 270.

156 See page 46.

157 Hasty, ‘Just in Time for More Dichotomies’, 277.

158 See ibid., 277–279.

perspective allows for the possibility of a genuinely naturalised phenomenology of musical interaction. Entrainment offers an essentially naturalistic conception of temporal synergy, while projection that of a phenomenologically-oriented characterisation of temporal awareness, and these two perspectives can be mutually consistent and informative. Seen another way, a phenomenological interpretation of metric projection opens up the possibility of developing the naturalised conception of entrainment to encompass the subjective awareness of temporal passage. Where the phenomenological perspective describes the constitution of the experiential act of the judgement of temporal duration, entrainment refers to the underlying material events that correlate with the constitutive process.

3.3.2: Schütz, Clifton and Akbar: musical experience and time-consciousness

It would be remiss not to acknowledge the contributions of Schütz, Clifton and Akbar, who each theorise upon the experience of music with explicit reference to Husserl's structure of internal time-consciousness. Clifton is primarily concerned with the perception of music, or as he puts it, 'the constitution of the musical object', and his processual understanding of musical experience is described in terms of retention and protention. Rejecting the idea that music is best interpreted as an empirical object, Clifton takes the position that '[t]he reality of music is [not]… a fixed and stable reference point', but is instead 'constituted by a human act'.[159] In particular, his concern is with the meanings and phenomena that emerge in listening to a composition (illustrated through an analysis of Webern's *Bagatelle No. 1 for String Quartet* Op. 9), 'where part of its meaning is that it is one with itself';[160] i.e., the composition is experienced as a unified structure. Clifton's primary concern is

159 Clifton, 'Music as Constituted Object', 74, (1976).
160 Ibid., 82.

with the emergence of musical effects in an unfolding experience, and particularly with the understanding of music as ‘play’.[161]

Clifton is clear that musical meaning arises through the listener’s engagement with music as it unfolds. He makes the point that ‘[m]eaning is an achievement, a performance (*Leistung*) of the listener, a goal to be aimed at by the performance (*Auffiihrung*) of the musical score’.[162] In a similar vein he states that ‘[w]hen we say that a composition has unity, we are really saying that it is our experience of the composition which is unified’,[163] where ‘its unity is not presupposed, but constituted by a conscious but pre-predicative act’.[164] This is because the possibility of meaning presupposes a ‘field of presence’, meaning essentially James’ specious present or Husserl’s width of presence, which is constituted through the interplay of primal impression, retention and protention. For Clifton, ‘[i]t is this complex which must be evoked in any account of such experiences' as "unity," "identity," or "continuity"’.[165] Thus, for an adequate understanding of the meaning and experience of music we are referred to the structure of internal time-consciousness.

Schütz’s concern is with music as a form of social relationship, and the manner in which it functions as a ‘mutual tuning-in relationship’.[166] Yet, as the citation which opens this chapter indicates, Schütz also describes the experience of music in terms of Bergson’s inner *durée*, which he regards as an accomplishment of time-constitution. Echoing Clifton, Schütz takes the view that ‘musical experience takes place within a specious present’, which is to say it ‘is based upon the faculty of the mind to recollect the past by retentions and reproductions and to foretaste the

161 Ibid., 89.
162 Ibid., 76–77.
163 Ibid., 75.
164 Ibid.
165 Ibid., 83.
166 Schütz, ‘Making Music Together’, 92, (1951). This is a matter that is taken up in Chapter 8.

future by protentions and anticipations'.[167] Again, the musical theme, which he refers to as the basic element of music, is 'extended in inner time' and experienced apperceptively as a unitary whole.[168] While it is the case that Clifton and Schütz describe the constitution of music in terms of Husserl's structure of internal time-consciousness, both implicitly assume that relative and absolute duration are perceived through retention and protention. Put another way, neither address the specific question of the awareness of temporal duration, and so by implication of the constitution of rhythmic and metrical structure. Moreover, both are more concerned with the perception of music rather than the musician's experience of performance.

A connection between Hasty and Husserl has been recognised by Nicholas Cook. In his review of Hasty, Nicholas Cook remarks that '*Meter as Rhythm* is the most thoroughgoing attempt I know to apply a phenomenological approach to music... And this is remarkable, considering the total absence from it of such names as Husserl or Clifton'.[169] In a recently published thesis, Akbar identifies the relationship between the ideas of Hasty and Husserl in more developed terms, observing:

> It is clear that, for Hasty, notions like retention and protention are unavoidable when describing the experience of meter. The projection of a mensurally determinate duration, itself a unified conscious act, involves an intricate interplay of retended and protended elements and a determination of their respective roles within the structure of the living present (in Hasty's terms, their "meaning" or "being" for the present experience).[170]

167 Schütz, 'Fragments on the Phenomenology of Music', 46.

168 Ibid.

169 Cook, 'Reviews of Books', 606, (1999).

170 Akbar, 'Musical Understanding: Studies in Philosophy and Phenomenological Psychology', 79, (2013).

Clearly, there is a concurrence between Akbar and myself, although Akbar does not enter into the detail of how the becoming of a projected event is constituted through the interplay of temporal fading and temporal duration, which in turn depends upon the double intentionality of the retentional continuum.

3.4: Projection as the basis for a phenomenology of music performance

To restate: one of the aims of this thesis is to develop an understanding of musical time that is informed by Husserl's phenomenology of time-consciousness. In this chapter I have reviewed Hasty's identification of metre with a process of projection, and found that his processual account of metre presents an understanding of metrical awareness that is consistent with and complements the first-person perspective. In effect, projection describes the enaction of metre; an unfolding sense of metre, for a subject who 'lays down a path in walking', in the immediacy of the living present. In this respect, Hasty provides a provisional answer to the research question: how do we account for the ongoing perception of metre in the act of performance? This answer is provisional because from a phenomenological perspective the concept of projection requires a degree of theoretical development. Processual philosophy does not fully answer the related questions of how to account for the ability to judge temporal duration, and anticipate the timing of future events. The resolution of these matters is made possible by referring to Husserl's structure of internal time-consciousness. An immediate unfolding duration is constituted through the longitudinal intentionality of the retentional continuum, while the ability to perceive and judge determinate duration rests upon the transverse intentionality of the retentional continuum. The anticipated timing of a future event is founded in protention, whose specific content is founded in the retained awareness of immediately past events. As I have argued, these time-constituting processes are in

turn implicated in the projection of metre. Accordingly, the full answer to the question is that the perception of metre is best explained in terms of metric projection, which in turn relies upon an unfolding awareness of duration that is accounted for by the constitution of temporal awareness as described by Husserl.

I describe Hasty as offering a phenomenological description of metrical awareness. The latter remark requires qualification, since at no point does Hasty explicitly make this claim. As mentioned, Hasty bases his position on Whitehead's process philosophy: metric projection is phenomenological only to the extent that it presents metre from a first-person perspective. Significantly, the distinction between the becoming of a musical event and the becoming of a consciousness of that event is absent: Hasty's tendency is to speak of the becoming and the awareness of duration as interchangeable. Nonetheless, Hasty's position can be effectively developed and consolidated by drawing upon Husserl's ideas on time-consciousness. Husserl offers a more secure theoretical basis, as well as offering a phenomenological orientation and grounding for a theory of projection. Conversely, interpreting metric projection in terms of a phenomenology of time-consciousness has led to the identification of an underdeveloped aspect of Husserl's work concerning the constitution of a determinate duration. I have made suggestions about how to accommodate this specific matter.

Having identified a connection between metric projection and time-consciousness, my intention is to base the enquiry into the other research questions that inform this thesis upon this finding. From this point on, my assumption is that the sensitivity to temporal passage and temporal duration, and specifically, metrical awareness, is founded in the retentional and protentional modifications of impressional appearances. My intention is to develop this idea further in Part Three

of the thesis. Taken together with the positions of Roholt and Høffding, this enables me to further develop a phenomenology of music performance. Before doing so, in Part Two I develop a more substantial sense of what is involved in musical interaction and the performance of rhythm.

PART TWO: RESEARCH DESIGN

In Part Two, I draw upon the established theoretical ideas and methodology of phenomenology, and also human science phenomenology, in order to present a musician's view of music performance and musical time. Ultimately, the intention is to relate a phenomenological understanding of the *structures* of consciousness to the performance of rhythm. Yet, the pathway to achieving that involves eliciting narratives; first-person-descriptions that provide a sense of 'what it is like' to be a musician,[1] or as Abbate puts the matter, of 'the drastic'.[2] These narratives provide a glimpse of the experience and meaning of the act of music performance from the musician's perspective. I identify themes that emerge from an analysis of discussions with musicians, and that appear to be essential features of music performance, with a view to interpreting those themes from a phenomenological perspective.

1 To paraphrase Nagel, 'What Is It like to Be a Bat?'

2 Abbate, 'Music—Drastic or Gnostic?'

Chapter 4: Methodological Principles and Format of the Research

The purpose of this chapter is to outline the methodological principles that have guided and informed the research process, and to describe the respective methods and techniques that I have used in conducting the research. The research process has three stages. In the first stage I conduct two case studies, one preliminary and the other primary. The preliminary case study involves a self-reflective examination of instrumental performance. In the primary study I first conduct one-to-one interviews with musicians who have agreed to be research participants. The second stage is the analysis of the data that results from the reflective self-examination and the interviews. The third stage is the interpretation of themes that are identified through the process of analysis, from the theoretical perspective of phenomenology.

In the two case studies I draw upon the methodological principles of phenomenology. This is the case in two respects. In the preliminary study I straightforwardly employ these principles. In the primary study I draw upon the methods and techniques of human science phenomenology in order to develop a research procedure that meets the aims of the study. The methodology of human science phenomenology is founded upon an appropriation of phenomenological methodology and methods, which have been adapted to serve certain aims and methods within human science and psychology. Where phenomenology aims to interrogate the structure of consciousness and subjectivity, human science phenomenology aims for 'the structure of concrete experiences'.[1] My interest in the methods of human science phenomenology lies in the fact that they provide a

1 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 100.

systematic means for producing third-party descriptions of experiences of a certain type; descriptions that retain and respect the first-person perspective.

In section 4.1, I outline the methodological procedures that contribute to the establishment of phenomenology as a field of academic enquiry. In section 4.2, I discuss the application of this methodology, and the particular issues that arise in relation to characterising third-party experience. I look to human science phenomenology as a resource for responding to the challenges involved. Sections 4.3 and 4.4 examine the practicalities and context of the primary case study. Section 4.3 introduces the research participants and offers some description of the situations in which they typically perform. Section 4.4 describes in more detail the practical steps involved in undertaking the study, including a discussion of the considerations involved in undertaking the interview process, and the steps taken in transcribing and analysing the data.

4.1: Research methods in phenomenology

This research seeks to articulate the experience of music performance in relation to certain underlying phenomenological structures, where these structures are considered, in a very general sense, to constitute our experience of the world. In order to achieve this objective I have undertaken two case studies in which I have applied contrasting, although methodologically related, research methods. In the primary study I have interviewed nine musicians about their experiences of music performance. The other, which should be seen as a preliminary study, has involved a reflective self-examination of the performance of a narrowly circumscribed instrumental skill. In undertaking these case studies, I was challenged with designing a research process that remained in keeping with the principles of phenomenological

enquiry. For this reason, before describing the research methodology, it is useful to describe the rationale for a phenomenological methodology.

An overlap between phenomenology and empiricism is reflected in the commitment to experience as an important means of arbitrating on the truth of a given matter. For Husserl, a founding principle of phenomenology—indeed, the 'principle of all principles'—is that '*every primordial dator intuition is a source of authority*',[2] meaning that whatever is given in sensory perception '*is simply accepted as it gives itself out to be*'.[3] This principle follows from the recognition of an essential truth of empiricism that any judgement must be in accordance with the facts of experience.[4] However, for Husserl the error of empiricism is to conflate this truth with the supposition that scientific 'knowledge must be *grounded* in immediate experience'.[5] This is because many examples of judgements, such as those of formal logic, mathematics and indeed philosophical principles, are founded upon the basis of an '*immediate "seeing"*', which goes beyond the mere 'sensory seeing of experience', and 'is the ultimate source of justification for all rational statements'.[6] That is, Husserl's position is that sensory experience alone is not sufficient to justify any statement of truth, as this also requires the capacity of (an) intuitive insight to recognise that the meaning of what is stated accords with what is given in experience. The claim of empiricism, that knowledge is based on experience, rests upon this recognition that judgement must accord with experience. This insight, along with the assertion that intuition is the source of justification for judgement, can be seen as points of departure for the project of phenomenology. However, the broad

2 Husserl, *Ideas*, 43, (emphasis in original).
3 Ibid.
4 Ibid., 35.
5 Ibid.
6 Ibid., 36. See also Pivčević, ‘Editor’s Introduction’, ix.

concern of phenomenology is to gain an understanding of the relationship between experience and the world experienced, and this calls for a certain approach—a phenomenological methodology. Gallagher and Zahavi offer a concise summary of the four basic steps: *epoché* (or 'bracketing'); phenomenological reduction; eidetic variation; and intersubjective corroboration.[7]

The *epoché* amounts to a suspension of ideas, beliefs or theoretical standpoints in relation to the natural world. As Husserl describes it:

> *We put out of action the general thesis which belongs to the essence of the natural standpoint* [attitude], we place in brackets whatever it includes respecting the nature of Being: *this entire natural world therefore* which is continually "there for us", "present to our hand", and will ever remain there, is a "fact-world" of which we continue to be conscious, even though it pleases us to put it in brackets.[8]

One of the purposes of the *epoché* is to highlight the fact that ordinarily, whether from the perspective of natural science or in everyday life, our engagement with the world is oriented around the reasonable—though nonetheless dogmatic and in a certain sense naïve—'*belief in the world*'.[9] Moreover, this belief involves a fundamental presupposition that the world, or reality, exists independently of mind, experience or theory.[10] As Zaner observes, this pervasive and implicit attitude was recognised by David Hume and simply termed 'belief'; an insight that Hume regarded as 'a motive for despair and scepticism'. By contrast, Husserl takes it as the point of departure for an important philosophical enterprise; namely, to ground and justify that same 'belief in the world' which he refers to as the 'natural attitude'.[11] The *epoché* is the initial move to this end. That is, the natural attitude is 'put out of action', along

7 See Gallagher and Zahavi, *The Phenomenological Mind*, 19–28.

8 Husserl, *Ideas*, 59, (emphasis in original). Typically, discussions refer to the ‘natural attitude’ rather than the translation provided by Boyce of ‘natural standpoint’.

9 Zaner, ‘On the Sense of Method in Phenomenology’, 135, (emphasis in original).

10 Zahavi, *Husserl’s Phenomenology*, 44.

11 Zaner, ‘On the Sense of Method in Phenomenology’, 136; Hume, *A Treatise of Human Nature*.

with all and any positing and judgements that depend upon it, with the precise purpose of placing it in focus and open to critical scrutiny.[12] The bracketing, however, is not a rejection of the natural attitude, but rather a 'suspension', 'disconnection' or placing 'out of action',[13] that aims to reorientate our attitude towards reality.[14] As such, it is 'the exclusion of a certain naïvety, the naïvety of simply taking the world for granted, thereby ignoring the contribution of consciousness'.[15] Nor is the *epoché* intended as a turn towards introspection, but is rather a means of establishing a perspective into the underlying structures that are essential to the constitution of experiential life. Moreover, the *epoché* is not a methodological step taken just once, but rather is 'an attitude that one has to keep accomplishing',[16] meaning that as an enquiry into the nature of experience progresses, the *epoché* must be sustained and repeated at each turn.

Where the *epoché* involves a bracketing of beliefs and judgements concerning the world, as Husserl explains it the phenomenological reduction implies a limiting of perspectives. The suspension is of a belief in the world as an objective entity, which is to say the world as nature,[17] or again as a social or cultural

12 Zaner, ‘On the Sense of Method in Phenomenology’, 137; Gallagher and Zahavi, *The Phenomenological Mind*, 22–23; Zahavi, *Husserl’s Phenomenology*, 45; Crowell, ‘Transcendental Phenomenology and the Seductions of Naturalism’, 28; Pivčević, *Husserl and Phenomenology*, 71.

13 Husserl, *Ideas*, 57.

14 Zahavi, *Husserl’s Phenomenology*, 45.

15 Gallagher and Zahavi, *The Phenomenological Mind*, 23. See also Husserl, *Ideas*, 57; Zahavi, *Husserl’s Phenomenology*, 46.

16 Gallagher and Zahavi, *The Phenomenological Mind*, 23.

17 Husserl, *Ideas*, 110. I have presented here a particularly Husserlian conception of the epoché and reduction. Merleau-Ponty challenges the possibility of bracketing the world, as to do so presupposes the world as an entity that is external to experience. Instead, Merleau-Ponty chooses to suspend ‘the view that the only real entities are those whose properties and behaviour can be determinately measured’, so revealing ‘experience as it is lived’. Romdenh-Romluc, *Guidebook to Merleau-Ponty*, 22.

phenomenon,[18] along with theological or religious entities,[19] and 'all other varieties of the "transcendent"' including (albeit with some important qualifying remarks) formal logic and the disciplines of mathematics.[20] What remains following this bracketing is a 'phenomenological residuum' which Husserl describes as '*pure consciousness in its own absolute Being*'.[21] In effect, the reduction involves reflectively focussing attention upon consciousness itself, so as to elucidate its internal processes and structures as they bring the world to manifestation.[22] If we were to take a particular object as an example, such as a trumpet, we could discuss the trumpet itself in terms of its various properties, and we could also consider the experience of the trumpet. The trumpet may be of a certain shape, weight, length and density, and be made of certain materials. It may be experienced as having these properties, yet the experience itself has none of them. The experience, rather, is one of seeing the trumpet, or placing it to the lips, perhaps, with the intention of playing 'Bye bye blackbird'. It is also a matter of perceiving perspectives and profiles, of having a tacit sense of its presence as one plays, or again a sense of weight and hardness.[23] While the trumpet may remain as a stable and unchanging object, its appearance will continually shift and modify in the course of time. Again, the mode of experience may vary, so that the trumpet is remembered, forgotten, imagined or otherwise intended. Undertaking the phenomenological reduction is to limit our considerations to the experience of the trumpet (and the modalities by which it may be experienced), which is to say, how the trumpet appears to us within consciousness.[24] The procedure

18 Husserl, *Ideas*, 111.
19 Ibid., 112–113.
20 Ibid., 113–115.
21 Ibid., 96 (emphasis in original).
22 Ibid., 62; Gallagher and Zahavi, *The Phenomenological Mind*, 23–25.
23 See Gallagher and Zahavi, *The Phenomenological Mind*, 6–8.
24 See ibid., 24–25.

then allows us to examine how the changing flux of experience comes to constitute the trumpet as a stable, enduring entity.

In performing the *epoché* and the reduction, the purpose is to articulate the intentional relation that exists between the consciousness-of an object as it is experienced and the object itself, including the meanings that are attributed to it within consciousness.[25] Critically, in keeping with the basic stipulation of the *epoché*, any attempt to explain experience and its underlying constitutive structures cannot in the first instance resort to the generally held presuppositions of the natural attitude. In particular, the methodology rules out recourse to natural science as an initial means of explaining lived-experience and its intentional structure.[26] Rather, phenomenology proceeds by way of 'the careful description, interpretation and analysis of lived-experience'.[27] In so doing the aim is to bring out the *essential* features, processes and structures of intentional experience. This entails the use of a method termed 'imaginative' or 'eidetic variation'.[28] Eidetic variation proceeds through re-imagining (through the play of 'free fancy') objects and concepts in alternative possible conditions and circumstance.[29] Husserl notes that more generally this method is used as a theoretical procedure, so that a geometer, for example, 'has perfect freedom in the arbitrary casting of the figures he has imagined, in running over continuous series of possible shapes'.[30] In describing and interpreting (a type of) experience, we might make use of the intuitive ability to vary the circumstances and conditions of the experience, and in so doing are able to distinguish those aspects that

25 Ibid., 23–25; Zaner, ‘On the Sense of Method in Phenomenology’, 137.
26 Husserl, *Ideas*, 115–117.
27 Thompson, *Mind in Life*, 16.
28 Gallagher and Zahavi, *The Phenomenological Mind*, 27.
29 Husserl, *Ideas*, 134–137.
30 Ibid., 136.

are intrinsic to it from those which are not.[31] For example, a rhythm can be played and recognised with varied precision in timing. However, the ability to play a rhythm in time, as ordinarily understood (or to hear it as being in time), is predicated on the capacity identified by Pressing '*to form and use*... predictions of the timings of future events'.[32] Arguably, this ability is essential to the perception or production of a rhythmic form, and the evidence is there when we attempt to imagine otherwise. Without the ability to anticipate the timing of a future event, it would be impossible to play rhythm in time, or to hear it as such. Eidetic variation, then, aims for the essential and invariant characteristics of experience,[33] but it also points to the necessary character of the correlations between experience and the world.[34] The sensitivity here to temporal passage points to an intrinsic relationship between the perception of a rhythmic pattern and the absolute and relative durations of the pattern as they occur in objective reality.

The fourth step Gallagher and Zahavi identify, intersubjective corroboration, is a necessary means of establishing the objective validity of any findings that arise from applying the methodology of phenomenology. Although phenomenology does not involve a turn to introspection, it is nonetheless an approach that 'takes the first-person perspective seriously':[35] it involves reflecting upon what is given in individual experience, and more significantly, developing the insights that arise 'into theories of perception, intentionality, phenomenality, etc'.[36] Generally, what is given is a world that transcends the individual perspective, and this itself implies that it is 'intersubjectively accessible', meaning that it is experienced as a world that can also

31 See Gallagher and Zahavi, *The Phenomenological Mind*, 27.

32 See page 4.

33 Gallagher and Zahavi, *The Phenomenological Mind*, 27.

34 Crowell, ‘Transcendental Phenomenology and the Seductions of Naturalism’, 28–29.

35 Zahavi, *Subjectivity and Selfhood*, 3.

36 See Gallagher and Zahavi, *The Phenomenological Mind*, 10.

be experienced by others.[37] Further, the nature of our judgements concerning the world is that they are reinforced when confirmed by others, and this applies equally in formulating a view upon how the world becomes constituted within experience. As Gallagher and Zahavi remark, intersubjective corroboration simply reflects 'the fact that phenomenologists do not have to do their phenomenological analyses alone', and moreover that 'the quest for invariant, essential structures of experience is not narrowly tied to the peculiarities of my own experience'.[38] The appeal to intersubjective corroboration implicitly entails a statement about the nature of objective validity, specifically that it does not rely upon an impossible (and nonsensical) requirement that the subjective perspective is eliminated. Rather, objective validity is founded through a negotiation towards consensus, and this can only occur between individuals, each of whom will ultimately view and theorise upon a matter from their own perspective. This implies that if the findings of any kind of research are to be valid, phenomenological or otherwise, they must in principle be open to some form of corroboration, and moreover be consistent with an already established body of knowledge. Moreover, as Husserl's principle of all principles implies, they must be intersubjectively validated such that they are consistent with the world as each of us experiences it.

Ideally, a research project motivated by phenomenological principles should incorporate, in some manner, the basic steps that have been described here. However, an issue to consider here is that a distance inevitably emerges between an experience and the articulated understanding of it,[39] precisely because of the temporality of both

37 Zahavi, *Husserl's Phenomenology*, 110.

38 Gallagher and Zahavi, *The Phenomenological Mind*, 28.

39 See Ricoeur, 'The Hermeneutical Function of Distanciation'.

experience and understanding. In the case of music, perhaps because it is itself a transient phenomenon, the difficulty is exacerbated. As Danielsen remarks:

> The funk experience as a state of being seems to be especially difficult to grasp, primarily because the very process of grasping it tends to conceal the distinctive qualities of its initial events. Also, because of the highly processual character of its meaning, funk is about how things are in "real time"—how the groove unfolds in performance, right then and there.[40]

In effect, we are faced with the task of navigating the relationships between lived experience, the meanings that we ascribe to our experiences, and our understanding, in a more general sense, of the internal structure of experience. Given that both human life and the understanding of it has a temporal character, a systematic understanding of 'being in time' is impossible, since '[t]he difference between how things are when they happen, in time, and how they are immediately afterward, in the process of understanding, is impossible to transcend: it cannot be levelled out'.[41] For Danielsen, this is not to deny the possibility that reflecting upon experience offers a means of gaining some insight, as 'we can try to make this impasse a part of the process of understanding and communicating'.[42] Danielsen's remarks reflect deeper issues that concern the possibility of articulating a reflective self-awareness of lived experience. In part, the matter turns on the outcome aimed for; in particular, if we are trying to understand an experience in its mundane or transcendental respects.[43] As Roholt suggests, indirect description does enable us to describe and explain certain intangible or ineffable aspects of our experiences, yet this approach will still only yield insights into the mundane character of the experience. If we are to gain a transcendental understanding of subjectivity, then the *epoché* is critical. Zahavi remarks that this is because '[n]atural reflection presents us with a constituted,

40 Danielsen, *Presence and Pleasure*, 12.

41 Ibid.

42 Ibid.

43 Zahavi, *Husserl's Phenomenology*, 49.

objectified and naturalized subject',[44] whereas 'only through a radical turn toward that which in a strict sense is given from a first-person perspective, can transcendental analysis commence'.[45] Although we must acknowledge the inherent impossibility of fully or exhaustively detailing an experience in all its mundane particularity, this does not preclude the possibility of grasping its essential character. We can only accomplish this by putting to one side our preconceptions, describing the experience as it is given to consciousness as best we can, and reasoning as to the pre-conditions of its possibility.

A further issue for the methodological principles of phenomenology is that a tension arises from the demands, on the one hand, that an examination of consciousness must proceed 'free of presuppositions', and on the other, that it must conform with an intersubjectively established understanding. For Varela and Shear, 'no methodological approach to experience is neutral, it inevitably introduces an interpretative framework into its gathering of phenomenal data'.[46] It follows that we can never articulate or describe experience in a way that is entirely free of presupposition, but instead must begin any examination of a phenomenon on the basis of an already existing understanding. Through the descriptive process, along with the interrogation and interpretation of experience, tacitly held assumptions may themselves come to light, and by such means we may become clearer as to the nature of experience and our understanding of it. That is, the clarification of the structure and meaning of experience is achieved by way of a hermeneutic circle. Any fresh enquiry into a given experiential phenomenon might already proceed on the basis of

44 Ibid.

45 Ibid., 50.

46 Varela and Shear, ‘First-Person Methodologies: What, Why, How’, 14. The point is echoed in Michael Polanyi’s remark that ‘*we can know more than we can tell*’ (emphasis in original), *The Tacit Dimension*, 4.

established phenomenological understandings and assumptions. Although the *epoché* may be an attitude that needs to be repeatedly accomplished, and the reduction applied with respect to whichever region of experience is under consideration, little is to be gained by reinventing established phenomenological ideas.

In undertaking the case studies here I have aimed to adopt the methodology of phenomenology and this requires some qualification. The challenge here is that in the usual course of phenomenological reflection, the concern is with experience at a universal level of generality: the enquiry is aimed at the pre-conditions for any type of consciousness, and is not necessarily restricted to human experience alone. Music performance, however, is a very specific type of experience, that is (arguably) particular to certain human beings that have a set of acquired musical skills. As Høffding remarks, the difficulty resides in articulating a description and analysis of an experience when it is not necessarily accessible to the phenomenologist, or again cannot be directly corroborated except by those who have actually lived through the experience. It follows that, from a phenomenological perspective, specific non-universal types of experience cannot be investigated through a direct application of the *epoché* and reduction. Instead, the experience must be approached indirectly.

4.2: Methodology of human science phenomenology and the application of its methods

The preliminary study employs a methodology that straightforwardly sits with the approach of phenomenology presented here—the suspension of beliefs concerning how a task is executed on a musical instrument, and a turning to the experience of such in its own terms—because I draw on my own experience as a musician. This case study is a reflective self-examination of the performance of an instrumental

skill, in which I adapt an application of the phenomenological reduction, that has been formulated by Sheets-Johnstone, to the experience of bodily self-movement.[47] Sheets-Johnstone argues that to understand our own motility demands the bracketing of the natural attitude, and the turning of our attention directly to the phenomenology of kinaesthetic consciousness,[48] which she describes as the awareness of the unfolding dynamic of self-movement.[49] The product of such a phenomenological interrogation of self-movement is the realisation that kinaesthetic consciousness has an identifiable cardinal structure which exhibits temporal and spatial invariants.[50] The self-examination I have undertaken has concentrated on the execution of a seemingly basic and simple (in the view of some, primitive) coordination; namely, hitting a drum with a stick (see Chapter 5.1). The intention is to develop a detailed description of the experiential dimension of the performance of this skill, and how this is constituted in the course of time as the articulation of rhythmically ordered sound. As a drummer, this is a skill that I am familiar with, and is also one that I have discussed at length with instrumental tutors and other musicians, and have taught to music students. It follows that I am in a position to reflect in detail on the execution of the skill from a first-person perspective. Moreover, in having some insight into phenomenological methodology, it is possible for me to focus upon my own experience of performing this particular skill under the conditions of the *epoché* and reduction.

Certain precautionary considerations apply in undertaking a phenomenological enquiry. The description of the task implicates a normative dimension; that is, an explication of how to perform it in a way that serves the

47 See Sheets-Johnstone, *The Primacy of Movement*, 121–123.

48 Ibid., 130.

49 Ibid., 123.

50 Ibid., 122. See also section 7.1

broader purpose of playing music; and there are established (although not necessarily uniform) views on what distinguishes good from poor execution, along with the choices of strategies for achieving this: for instance, it is considered good practise to handle an instrument with an absolutely minimal degree of felt tension.[51] My intention here is to bring to the fore the factors that support such abilities, and for that reason I do not see it as appropriate to place the normative assumptions concerning this skill to one side. Rather, they have been taken as a given (although without assuming they are uniquely 'correct'). In fact, the normative assertions of subject-centred perspectives (that is, the views and insights that originate from within the domain of music performance and pedagogy) offer a valuable resource for gaining an understanding of the execution of the skill, and with it the experience of such. Against this, naturalistic suppositions are held as to *why* certain strategies are, or are likely to be, more successful than others. Suppositions of this kind have been bracketed in the course of self-examination and self-reflection.

With the primary study I draw upon the experiences of other individuals who can be described as expert, and in some cases, elite musicians. Part of the rationale here is that these individuals will have significant insights into this particular type of experience. Of course, as with the preliminary study it would be possible to proceed upon the basis of my own experience. However, given that this is the primary study of the thesis, I have taken the view that obtaining accounts from a number of other musicians offers the possibility of intersubjective corroboration and the prospect of unanticipated perspectives and insights. Moreover, although the various perspectives show significant divergences between participants in terms of how they experience music performance, the meanings they attribute to them and the evaluations that they

51 Grindea, ‘Tension in Piano Playing’, 104; DeJohnette and Perry, *The Art of Modern Jazz Drumming*, 37.

make, they also yield certain commonalities. Further, in considering the experiences of a number of individuals, I reduce the potential for the descriptions that result from the process to be unconscious confirmations of an already held theoretical position.[52] The significant challenge here resides in the fact that the experiences to be considered cannot be directly given for reflective consideration precisely because they are second and/or third-party experiences.[53] On account of its particularity, experience itself is not something that can be communicated.[54] Thus, rather than directly applying the *epoché* and reduction in order to gain insight to some universal aspect of experience, I pursue a more indirect approach to characterising the experiences involved, along with their structural properties and features.

For the primary study I have chosen to formulate an approach that involves, following Høffding, a 'phenomenological interview'.[55] Høffding notes that in an interview two subjects 'interact in a continually evolving conversation'. The encounter is structured by the specific aims of the researcher. With a phenomenological interview, the structuring is informed by an understanding of phenomenological principles and insights. However, although phenomenology is intrinsically characterised by its methodology, it falls short in offering a procedure for systematically gathering and analysing research data from multiple subjects. For this reason I have chosen to appropriate and adapt closely related methodologies, as they offer a more methodical approach to this type of research situation. These approaches, which have been termed ‘human science phenomenology’, or again, ‘phenomenological psychology’, draw upon phenomenological principles and methods, with the aim of eliciting underlying themes that characterise specific types

52 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 95–96.

53 See Zahavi, *Husserl’s Phenomenology*, 113–114.

54 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 226.

55 Høffding, ‘A Phenomenology of Expert Musicianship’, 72–74.

of experience.[56] The approach of human science phenomenology is founded upon the supposition that, if not experience itself, the inherent meaning or significance of experience is something that can be communicated: it is this communicability of meaning that enables us to describe our experiences.[57] In contrast to the transcendental concerns of Husserlian phenomenology, the intended goal of human science phenomenology is 'the clarification of the meanings of phenomena as experienced by human beings'.[58] The concern is not with the intrinsic structures and properties of subjectivity, so much as the underlying and invariant *meanings* that individuals attribute (if not explicitly so) to the type of situation under consideration, both at a general and idiographic level.[59]

One of the strengths of human science phenomenology is the development of a more systematic research methodology that can be applied to the study of multiple research participants. This is not to suggest that the methodology requires a researcher to rigidly follow certain procedures, but that certain procedures can be formally applied so as to organise the extensive amount of raw data that arises, and render it readily available for analysis. Furthermore, the procedures of any study, if not the precise results, can be readily repeated by another party, so offering a clear potential means of corroboration (or indeed, refutation). A large part of the formal process may be automated through the use of information technology, in the form of qualitative data analysis (QDA) software. The process itself still calls for a large degree of intuitive judgement and appraisal, as does the subsequent analysis and

56 Giorgi, *The Descriptive Phenomenological Method in Psychology*; Van Manen, *Researching Lived Experience*; Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*.

57 Mensch, 'Husserl's Account of Our Consciousness of Time', 228–229.

58 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 98; See also Van Manen, *Researching Lived Experience*, 4.

59 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 100–106; Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 37–38.

interpretation. The approach typically involves conducting semi-structured interviews with the participants, in which they are invited to describe their experience of a certain type of situation, and also to evaluate and interpret the significance of those experiences. The descriptions provided by participants provide 'an opening into the world of the other that is shareable'.[60] The process of analysis involves transcribing the interviews, and then making initial interpretive annotations and comments. These aim to identify statements that have some significance in relation to the type of experience being researched, and may be designated as 'meaning units',[61] or 'thematic statements'[62]. In turn, the annotations may then be thematically organised. This structuring of the data provides a framework for the interpretation and analysis of the transcriptions, where the aim, through eidetic variation, is to then identify underlying patterns and themes that emerge from the initial annotations and comments.[63] The analysis may aim idiographically to identify themes that are significant to a particular individual, or again may aim to reveal structures of experience that appear across a number of separate accounts.[64]

The claim of these approaches to being phenomenological lies not only in placing a strong emphasis on subjective experience, but also in adopting the methodological principles of phenomenology.[65] However, certain issues arise; such as to whether the researchers alone commit themselves to the *epoché* and reduction, or that the interview is designed so that the participants are themselves asked or required to suspend certain judgements and apply a narrowed perspective. In the

60 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 96.

61 Ibid., 143–145.

62 Van Manen, *Researching Lived Experience*, 92–95.

63 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 195–199; Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 91–99.

64 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 199–204; Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 106–107.

65 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 67–70.

literature a broad agreement exists that researchers should put aside their own presuppositions concerning the type of experience under consideration, particularly when analysing and interpreting the data.[66] In seeking to interpret the data, the descriptions themselves should provide the ground for any theoretical positioning rather than the reverse.[67] Smith *et al* suggest that the suspension of theoretical commitments should also be in place when undertaking the interviews and the analysis.[68] Indeed, they suggest that an *epoché* can be effected by specifically attending to the participant's experience, as in doing so 'you are more likely to park or bracket your own pre-existing concerns'.[69] That is, in listening carefully and deliberately to a participant's responses in the course of an interview, the researchers own pre-suppositions and assumptions are tacitly displaced.

The question of how the phenomenological reduction is applied is not so straightforward. Giorgi suggests that research subjects assume the natural attitude, and that the researcher performs the reduction.[70] However, this position appears to oversimplify the matter, and extends from not adequately distinguishing between the reduction and the *epoché.* The *epoché* is intended as the bracketing of assumed theoretical positions, and this need not be explicitly required of a participant. Indeed, to an extent it can be built into the design of the study, as the participants can be asked to describe their experience without being asked for specific explanations. Even where explanations are offered, or are clearly assumed in the articulation of an experience, they can be identified and put to one side by the researcher in the phase of analysis. However, the reduction requires attention to focus upon a specific kind of

66 Ibid., 96.

67 See Høffding, ‘A Phenomenology of Expert Musicianship’, 74.

68 Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 64.

69 Ibid.

70 Giorgi, *The Descriptive Phenomenological Method in Psychology*, 96.

experience. If the theme of the enquiry is the participant's experience, then in some way the participant themselves must have their attention directed towards that experience, or again some means or reliving and/or describing it. One way of achieving this is to have the participants attempt the reduction by explicitly asking them to focus on and describe their experience. A more nuanced approach is to have the reduction carried through into the design of the interview structure, so that the way that the questions are formulated guides the participants towards the experiential dimension.[71] An example of this approach is offered by Claire Petitmengen, who proposes the use of certain protocols that capture a detailed and precise description of a subject's experience.[72] Petitmengen identifies a number of issues that a researcher must typically resolve, and offers specific procedures for overcoming the difficulties involved. These are procedures that incorporate the *epoché* and reduction into the design of the interview process. As I have adopted some of Petitmengen's ideas, I discuss them in greater detail in section 4.4.

A further point concerning human science phenomenology are the theoretical differences concerning the issue of interpretation. For Van Manen the practice is hermeneutic in that 'there are no such things as uninterpreted phenomena'.[73] This is because for the subject 'the "facts" of lived-experience are always already meaningfully (hermeneutically) experienced', implying that a subject will describe

71 These alternatives are considered by Gallagher in relation to incorporating phenomenological theory into the research design of cognitive neuroscience. In the former case, he considers Varela and Shear's suggestion that participants are trained to perform the reduction. In the second he proposes that phenomenological principles and insights might be 'front-loaded' into the research design. A consequence of the latter case is that participants may effectively perform the reduction without necessarily being aware that they are doing so. The concerns are relevant here, but the idea is presented within the context of formulating a naturalised phenomenology rather than a phenomenological psychology. See Gallagher, 'Phenomenology and Experimental Design: Toward a Phenomenologically Enlightened Experimental Science'; Varela and Shear, 'First-Person Methodologies: What, Why, How'.

72 Petitmengin, 'Describing One's Subjective Experience in the Second Person'.

73 Van Manen, *Researching Lived Experience*, 180–181.

their experiences from within an assumed framework of meaning.[74] Citing Friedrich Schleiermacher, Smith *et al* argue that interpretation is the primary means by which a researcher comes to clarify a phenomenon.[75] They take up the idea that a text is shaped by both the conventions of a linguistic community and by the way that a writer makes use of those conventions, so that 'the aim of the interpretive process is to understand the writer, as well as the text'.[76] If the process is followed through in a 'detailed, comprehensive and holistic analysis',[77] this should lead to 'meaningful insights that exceed and subsume the *explicit* claims of our participants'.[78] They also observe that the process of analysis involves a 'double hermeneutic': it is, in essence, an interpretation (performed by the researcher) of the participants description of their experience.[79] Noting Paul Ricoeur's distinction between a 'hermeneutics of empathy', that aims to 'reconstruct an experience in its own terms', and a 'hermeneutics of suspicion' (or 'questioning') where external perspectives serve to orientate the analysis, they claim that their particular methodology of interpretive phenomenological analysis (IPA) offers a middle ground between these hermeneutics. The interpretive work of the researcher 'serves to "draw out" or "disclose" the meaning of the experience', by initially framing the analysis in the terms given by the participant.[80]

Giorgi draws a clear distinction between interpretation, which aims for the clarification of ambiguities within a transcription, and descriptive analysis, which

74 Ibid.

75 Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 22–23; Schleiermacher, *Schleiermacher: Hermeneutics and Criticism*.

76 Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 22.

77 Ibid.

78 Ibid., 23.

79 Ibid., 35–36.

80 Ibid., 36; Ricoeur, *Freud and Philosophy*.

'does not try to go beyond the given'.[81] Giorgi's motives appear to be to maintain a disciplined scientific treatment of the research data given by research subjects through the phenomenological reduction, where the interpretive intentions and preconceptions of the researcher can only minimally impact the research findings. However, his position fails to acknowledge that even when strictly limiting attention to what is given in the text of the transcriptions, the meanings within the text itself are nonetheless inherently mediated through cultural, contextual and historical factors. In practice, the process of analysis he outlines runs more or less in parallel with those advocated by Smith *et al;* as a process of interpretation, undertaken by a researcher, of participants accounts (descriptions and interpretations) of their experience. For Smith *et al,* 'a successful interpretation is one which is principally based on a reading from *within* the terms of the text which the participant has produced'.[82] Further, consistent with the acknowledgement that a fore-conception is always at play, Smith *et al* describe analysis as a non-linear and iterative process, where 'we may move back and forth through a range of different ways of thinking about the data', so continually reinterpreting the relationship between the general and the particular.[83] Interestingly, Høffding describes a strikingly similar analytic process of operating between two tiers that feed into one other; the subjects descriptions and the researchers phenomenologically-informed interpretation of those descriptions. The result is a dialectic process in which 'one's view of the meaning of the descriptions changes and in which the analysis develops until one has reached a certain point of consistency or saturation', wherein the descriptions are intelligible 'in the light of the conceptual framework developed'.[84]

81 See Giorgi, *The Descriptive Phenomenological Method in Psychology*, 127–128.

82 Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 37.

83 Ibid., 28.

84 Høffding, 'A Phenomenology of Expert Musicianship', 77.

In conclusion, human science phenomenology has appropriated certain methodological principles, and taken up the phenomenological commitment to doing justice to the subjective perspective. The justice done is of quite a different sort to that intended by Husserlian phenomenology. As seen here the concern of human science methods is with the invariant meanings attributed to experience, rather than the essential structures of consciousness. The interest is in the human subject rather than subjectivity. Although in many respects laudable, this shift of emphasis has drawn some criticism. Gallagher, for instance, has stated that human science phenomenology studies tend to gather opinions and explanations from subjects rather than descriptions of lived-experiences, and moreover adopts methods imported from psychology which are not properly integrated with phenomenology.[85] All the same, procedures of human science phenomenology can be re-appropriated for phenomenological ends: the specific methods of conducting semi-structured interviews, and the subsequent analysis of interview transcriptions for meaning attribution, can lead to insights into the experience under consideration.[86] These insights may in turn lend themselves to a dialogue between phenomenological perspectives and the interview data: the phenomenological perspective offers an interpretive lens for viewing the data and significances identified, while the latter will in turn have something to offer phenomenological thinking. Ultimately, the concern of this thesis is not with the particularity of an individual musician's experience, but rather with the internal structure of subjectivity: yet, what a musician has to say about their experience can tell us something about the processes that constitute it, and *vice versa.*

85 Gallagher, 'Taking Stock of Phenomenology Futures', 306.

86 Merleau-Ponty is known for drawing upon first-person reports and third-party observations made in empirical studies in order to establish certain phenomenological positions. See Merleau-Ponty, *Phenomenology of Perception*, 2012, 105–140; Romdenh-Romluc, *Guidebook to Merleau-Ponty*, 24–26.

4.3: Participants in the principle case study

In the course of the primary study, nine musicians were interviewed as research participants. All are experienced musicians of many years standing, where typically they have been playing and performing regularly for somewhere between twenty to fifty years (all except one for at least thirty years). Some of them would qualify as elite, and all are, or have been, professional or semi-professional musicians. The study has been undertaken following the University of Nottingham's 'Code of Research Conduct and Research Ethics'. Participants have signed forms consenting to their participation in the study and they have been assured that their contributions will remain confidential.[87] The interviews were conducted on an anonymous basis: although each volunteered some biographical and demographic information a number of the participants are known to each other, so that to disclose this information risks breaching the agreed terms of confidentiality. The extensive experience of each is testimony to a high level of musical ability and competence. It also points to a deep involvement with music performance that indicates an understanding of it's being and doing, including a strong sense of the feeling of that involvement. This places them in a position to offer detailed descriptions, along with significant and valid insights, into the meaning and experience of the act of performance. The musicians that agreed to be interviewed fall into two groups. The first group are musicians who regularly attend a particular jam night.[88] The second

87 The following explanation of the research was provided on the consent form: 'The purpose of the study, 'Experiencing Music as a Performer', is to identify a sense of the experience of performing music. The study is being conducted in relation to doctoral research that is being undertaken at the University of Nottingham. The topics I am aiming to cover include the experience of the musical instrument, the sense of the presence of other performers and audience, and how a performer understands or relates to time and/or timing. The questions asked will be primarily directed towards these topics, although some initial questions will be asked for the purpose of establishing a context for the study, and so will ask for a minimal amount of personal details.'

88 Participants 1-5.

group are musicians whose instrumental role typically involves a specific concern with time.[89]

The jam night attended by the first group is an event where the style of music mostly played is contemporary popular music, such as blues, rock, reggae, soul, and so on. In saying 'contemporary', a qualifying remark should be made that, generally speaking the musical styles and songs that are performed originate from the 1950's through to the 1980's. Like many jam nights, the event is organised by having a house band, whose line-up changes from week to week, rotating between various musicians. The people I have interviewed not only regularly attend this event, but in fact have all been members of the house band at one time or another. My initial goal of interviewing musicians who attend the night was to place the issues within the context of a specific social setting, which in important respects contributes to the particular nature of the performance situation.

The structure of the jam night is fairly straightforward. A house band is hired for the night: they receive a small renumeration to cover expenses, an amount which is significantly less than they would expect for a regular gig. They begin the night by performing a set, typically lasting twenty minutes to half an hour, at which point people ‘in the house’, usually singers, are invited to take the stage and perform a few numbers. Two or three will usually perform four or five songs between them, at which point the house band take a break and other instrumentalists are called up to take their place. The established pattern continues through the evening. The arrangement can vary a great deal, depending upon how many musicians are in attendance. As the evening progresses, the numbers usually increase from a relative handful of people at the start of the performance (typically around ten to fifteen), to a

89 Participants 6-9.

much busier and noisier crowd by the end. As an established event, the majority of people at the jam night attend on a regular basis, while some appear more intermittently, and others may pass through a few times and then not be seen again. The composition and make-up of the night is never static; the house band changes from one week to the next, on the basis of informal rotation, people come and go from one week or month to the next, many may not be seen for months or years and then start coming back every week, but for all that an ongoing sense of regularity and continuity remains.

This regularity is reflected in the repertoire for a typical night. The musicians normally perform popular standards from various contemporary genres. The choice of songs are usually determined by the singer or musician assuming the leading role, and to an extent the choice is negotiated to ensure all present have some understanding of it (although this process is not always successful). Consequently, as the lead singer or musician is generally comfortable performing songs that they and other musicians are familiar with, they typically perform many of the same tunes from week to week. The range varies according to the repertoire available to individuals and groups, but even for those with a wide repertoire, a tendency exists to fall back on familiar standards. This has the effect that certain players over time establish something of a personal set for the night, whilst most regular instrumentalists are familiar with the majority of the songs performed over an evening. However, it is always possible that someone might introduce a new song as long as others also know the music or can pick it up easily. If played enough times over the weeks, these new tunes eventually become established as part of the night's repertoire.

The majority of the musicians attending the night could be described as semi-professional, although this captures quite a wide spectrum from the 'unemployed musician' who may pick up a gig in a pub every couple of months, to others who regularly play elsewhere. Others are enthusiastic amateurs or students, and a few (though rarely) are established professional musicians. Many of the musicians have long established friendships and working relationships with others in attendance, often playing together in established acts elsewhere. Moreover, interchanges frequently occur within the patterns of working relationships. The reasons for attendance also vary greatly. Some are there for the occasion itself, a chance to socialise, participate in the proceedings or have an enjoyable night out. They may wish to take the opportunity to work on and refine the performance of songs, to try out new tunes, experiment, and otherwise develop a repertoire, to recruit musicians for a gig, to try out a potential working relationship or develop and consolidate one that is more established, or simply to get some playing time with other people in a live performance situation. In all, this amounts to a rich and complex social environment involving many types of individuals and personalities, with a large variety of motivations and intentions at play. The situation exhibits a great deal of variation from one week to the next, yet also retains a distinct character, underscored by its regularity and a continuity of the people in attendance.

For the purposes of this study, the element of primary significance is that in being oriented around a jam night there are established practices and values specific to this type of musical event. In particular, allowance is made for the experience and abilities of musicians that participate in the night, so that although a general desire exists to play to a reasonable technical and musical standard, it is accepted that on occasions this is not going to be reached. Also, given the rotating personnel that

typically characterises a jam night, a greater degree of uncertainty often exists concerning which song might be performed and how it might be interpreted, even though many of the songs are played on a regular basis. Although a jam night typically begins with a short set performed by a house band, none of the performance is rehearsed. Frequently, something of an active, intense and intimate relationship emerges between audience and performers. Moreover, the night is a continuation of an aural tradition. The music is rarely, if ever, performed from written notation, but rather developed using spoken explanations, from memory, and by closely listening to a song as it is played.

The second group of participants are all working musicians, and some are also music educators. They are all well known and respected within their field. They are also all drummers, as well as percussionists,[90] with one exception being a bass player (bass guitar and double bass). As with the first group, these musicians perform across a range of musical styles which, as one participant remarks, largely emanate from the Afro-American and Latin-American traditions, including such styles as jazz, hip-hop, drum and bass, reggae, rock, blues, bossa nova and salsa. They have significant experience in a broad range of performance situations, including professional performances, functions (weddings, birthday parties), jam nights (usually jazz / Latin nights), corporate events and festivals. As such, in the interviews they draw from situations where the degree of preparation and rehearsal is highly variable, as is the scope for improvisation, or against that, the expectation that they play specific musical parts.

My reason for recruiting the second group is that these are musicians who have a specific concern with rhythm and time. This holds principally in two respects.

90 Drums and percussion are the principal instruments of these musicians, but they are also all multi-instrumentalists.

First, drums and percussions sonically vary in timbre, texture and dynamics: they are not melodic instruments, and they are not implicated in the harmonic structures: they are not used for playing chords, nor does the determination of key have any real bearing on what these musicians play:[91] the primary musical concern is with rhythm. Second, a general expectation is that both drummers and bass players are responsible for maintaining the temporal coherence of the music; that they set and maintain the tempo, clearly state the time signature and pulse, and generate the rhythmic feel; and that they are also responsible for guiding the ensemble through any changes in these respects. Historically, this role was established in the formation of the jazz and blues tradition, where the time-keeping role of a musical conductor was assumed by the drummer, whose musical role was primarily to state and 'maintain a strong, regular beat within the framework of conventional tempos and meters'.[92] As western contemporary popular music has developed over the last century, this particular responsibility has extended to the rhythm section. As central components of the rhythm section, bass and drums have retained the primary responsibility for maintaining time.[93] As musicians who have a particular relationship with, and responsibility towards, time, they typically have a more reflective and developed sense of time and the experience of performing rhythm.

The performance activities discussed relate exclusively to ensemble performance. With the first group the main focus is upon jamming musical standards, although some discussions digress towards cases of rehearsed performance. The discussions with the second group cover a wide range of performance situations, including rehearsed performance, free improvisation, improvisation of jazz and Latin

91 Monson, *Saying Something*, 51.

92 Berliner, *Thinking in Jazz*, 324–325.

93 Doffman, ‘Feeling the Groove’, 155; Monson, *Saying Something*, 29, 52; Berliner, *Thinking in Jazz*, 349–350.

standards, 'pick-up gigs',[94] and in one case, playing along to pre-recorded sound tracks. In the context of the jam night, the use of notated music is extremely rare. More generally, my understanding is that notation is not typically used, except in the context of the improvisation of jazz and Latin standards and also pick-up gigs, where the use of musical charts is common practice.[95]

In summary, the respective profiles of the two groups offer a slightly different emphasis and focus in relation to the principal concern of the thesis, the shared sense of time and rhythm. In the first group, the emphasis is with the intersubjective dimension of performance, the second with the temporal. Regardless, in practice both the intersubjective and temporal are essential and intertwined aspects of music performance. Moreover, a significant overlap exists between the two groups in terms of the types of situations in which they perform: the considerable experience of each musician in the performance of contemporary popular music means that each of them has an expertise that promises valuable insights into shared experience of musical time.

4.4: Data collection and analysis

In keeping with the tenets of human science phenomenology, the interviews undertaken with participants are semi-structured. The style of the interview lies somewhere between a fully structured interview, where the researcher is prepared with a large number of typically closed questions, and an open-ended interview where the researcher and participant engage in a free flowing conversation about the topic of concern. In a semi-structured interview, the researcher has a prepared

94 This refers to the hiring of local musicians by an agent or venue, to support a travelling artist. My understanding is that these performances will often not involve a rehearsal.

95 So-called 'real' and 'fake books' that provide chord progressions for jazz and Latin standards.

interview schedule typically containing six to ten non-leading open questions.[96] Ideally, in being presented with open questions, the participants are allowed and encouraged to provide considered responses, where they may develop their thoughts and articulate the nuances and complexities of their experiences and the situation under discussion. In being asked non-leading questions, the expectation is that they follow the directions suggested by their own intuitions and reflections, as opposed to simply validating, or confirming or denying, a particular perspective held by the researcher.[97] However, structuring the interview with a number of questions ranging over the research topic acts as a means of maintaining the focus of the discussion on the areas of concern to the study, while permitting the participant and researcher to pursue productive lines of enquiry as and when they arise. It also allows for the research topic to be discussed from a number of varying perspectives, and also for there to be a greater thematic consistency across the interviews as a whole.[98]

The length of the interviews ranged between forty minutes and two and a half hours, although the majority lasted for ninety to a hundred minutes. Over the course of the study the interview schedule was revised on the basis of reflections upon how each interview proceeded. Initially the schedule contained thirty two questions, which for the course of a ninety minute interview might appear excessive. However, in practice, ten of the initial questions concerned biographical details that were intended to ease the participants into conversation. The intention was not to ask all the questions, but rather have them serve as prompts or potential talking points, that would serve to guide and structure the interview.[99] In practice, each participant was

96 Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 59–62.
97 Ibid., 64–66.
98 Ibid., 58–59.
99 Ibid., 64–66.

asked ten to fifteen questions on the schedule that were specifically directed towards the research issues.

The main focus of the study is the experience of rhythm; or again, a musical sense of time or timing. These features involve a sense of temporal passage, typically an awareness of others (especially other musicians), and a rhythmically expressed bodily articulation. Put another way, the question of musical time relates to the phenomenological structures of time-consciousness, intersubjectivity and motor-intentionality. However, to ask a musician directly about how they might experience time or rhythm, although it might yield some interesting considerations, is to concentrate on an aspect of performance in a way that is too abstract and narrow, and is unlikely to bring about any particularly meaningful responses. I have designed the schedule of interview questions with regard to the temporal dimension of performance conceived both narrowly, in terms of the specific concerns of musical time—tempo, metre, pulse, timing, and so on—and broadly, in terms of the larger patterns of awareness that take shape as the performance unfolds.

Consequently, the schedule takes a fairly indirect route, enquiring initially about the shifting patterns of attention and awareness: what it is that a musician is aware of, what they explicitly focus on, how they experience musical phenomena and other musicians, what elements of experience are foregrounded and which positioned more in the background of awareness.[100] I also asked musicians about their awareness of other musicians, the performance environment (specifically, that is, of the audience), awareness of the instrument, both the manipulation of it and it's sonic qualities, the experience of their own lived body, their awareness of the structure of the songs they perform. I enquired of each of the participants whether

100 See appendix.

they have musicians that they prefer to play with, and what their reasons might be for that. My purpose in asking these questions was to gain a sense of how they evaluate performance, and what they consider important, essential or perhaps irrelevant to the act of performing music. For similar reasons, I have asked about what kind of musician they prefer not to play with. Having established this context of awareness and attentional focus, along with a normative perspective on musicianship, I enquired about their experience(s) of musical time; that is, the modalities of rhythm, (metric) pulse, tempo, timing and groove. Much of the questioning was directed towards what was assumed to be a smooth and uninterrupted performance situation, which is to say what might be regarded as a successful or accomplished performance. On occasions participants were asked about their views and experiences concerning disturbances in performance, which is to say those moments where the performance goes wrong, or not as expected, in some respect or another. This was done on the basis of the observation that we become more reflectively oriented, and explicitly aware of features of the process or activity within which we are involved when confronted with some form of disturbance.[101] Accordingly, consideration of disturbance offers potential insights, that might not otherwise come to light, into the prereflective background that tacitly informs a musicians actions in the normal course of events.

In structuring the questioning in this way, I drew upon Husserl's conception of the horizonal structure of awareness (see page 15), as I found it useful to describe this structure to the interviewees before questioning them. In undertaking a trial interview, I prepared questions concerning the awareness of other musicians. The response I received was, 'Yes, I am aware of them.. or I'm not?', indicating a binary conception of awareness. In drawing the participant's attention to the horizonal structure my intention was to forestall this binary understanding of conscious

101 See Heidegger, *Being and Time*, 409; Dreyfus, *Being-in-the-World*, 70.

awareness, and instead have them position the various elements they encounter when performing in terms of this spectrum or structuring of awareness.

In section 4.2, I remarked that in enquiring after the experience of a participant, Petitmengen has identified a number of difficulties and challenges.[102] In particular, she notes the tendency of subjects to disperse their attention away from the target experience, and also to focus on the object of experience rather than the experience itself. Moreover, subjects will often relate to their beliefs and understandings, and do so from within the natural attitude rather than directly reference their experience. We can recognise that these difficulties largely stem from the near impossibility of exhaustively describing an experience directly as it occurs in real time, along with identifying the degree of precision required of a description of an experience in its varying attentional modes.[103] From the foregoing it should be evident that some attempt at eliciting the experience of the participants by way of a reduction has been attempted in the formulation of the interview structure, in that much of the questioning is directed towards a participants experience of performance. Arguably, orientating participants by familiarising them with the horizonal structure serves this attempt at a reduction by again concentrating attention upon the experiential dimension. However, asking participants about their experience cannot fully overcome the difficulties Petitmengen identifies, and she proposes certain procedures to that end. She suggests that the pattern of questioning should serve to stabilise attention towards the target experience, which may involve presenting interviewees with a reiteration or reformulation of their statements, while deliberately setting aside extraneous concerns.[104] In order to effectively bracket a

102 Petitmengin, ‘Describing One’s Subjective Experience in the Second Person’, 233–238.
103 Ibid.
104 Ibid., 239–240.

subject's prior presuppositions, she proposes asking subjects to describe the 'how' rather than the 'what' of experience, so redirecting attention away from the object of experience to the experience itself.[105] In practice, this is achieved by asking for descriptions of a singular lived-experience, rather than of a generic type, where the latter tends to invite abstract description and theorisation.[106] In conducting the interviews I have attempted to incorporate these procedures, although admittedly with variable, and often partial, degrees of success. Even though these techniques are available in principle, it can nonetheless prove difficult in practice to keep a participant focussed on a particular theme or topic and have them describe the experience, rather than attempt to explain or offer an opinion, especially when also purposefully allowing them to talk freely, and follow the logic and direction of their own thoughts. Inevitably, a lot of 'noise' appears in the data, and this entails a highly selective approach to the analysis; a filtering out of opinions and explanations in favour of description. Nonetheless, it is the case that some of this noise might contain potentially valuable insights into the experiential dimension, so that a judicious approach is also essential when putting to one side extraneous opinions.

In practical terms, the participants were interviewed at times and places that were agreed with them. Two interviews took place at the location for the jam night, with the idea that being present in the location would help to evoke and relive the experience. However, in practice this proved difficult, as being in public spaces invited interruption, as well as a lot of background noise that made transcription of the recordings difficult. Other interviews took place in more private locations, either at the participants domestic residence, or in two cases in offices within academic locations. Contemporaneous field notes were taken after each interview, recording

105 Ibid., 240–242.

106 Ibid., 242–244.

observations, reflections and salient points. The interviews were recorded using a sound recording software application on my personal phone. The sound files were then transferred on to a laptop, and transcribed manually by myself, using Audacity, an open source, cross-platform software for recording and editing sounds, and a text editor. Capturing participants' statements typically involved making a number of passes, so that although transcribing was something of an arduous task, I was able to become more intimately familiar with the details of the conversations, and more secure in terms of knowing what was said and when. This was to prove very useful when it came to analysing the transcriptions.

The initial step in the process of analysis involved importing the transcriptions into an open office word document, and annotating the text with comments and remarks making use of the comment function.[107] Sections of the text are identified and highlighted as 'thematic statements' or 'meaning units', and I have been particularly concerned with those that offer insights into the phenomenology of music performance. The annotations I have made follow the conventions suggested by Smith *et al*, where the comments made are descriptive, linguistic or conceptual.[108] Descriptive comments (which appear as normal text) are intended to describe the content of the transcript, and are 'about taking things at face value, about highlighting the objects which structure the participant's thoughts and experiences'.[109] Linguistic comments (appearing in italic text) are used to focus on the specific use of language, including the use of pauses, laughter and repetition, but also to identify the use of metaphor and analogy.[110] Conceptual comments (appearing as underlined text) are intended to serve the interpretation of the text, and so are there to record potential

107 A sample annotated text can be viewed in appendix, page Error: Reference source not found.
108 See Smith, Flowers, and Larkin, *Interpretative Phenomenological Analysis*, 83–91.
109 Ibid., 82.
110 Ibid., 88.

and actual insights and intuitions that arise through reflective consideration of the text.[111]

Once a text was annotated, I imported the original text file of the transcription into an open source QDA software known as R-base, which is a component of RStudio. R-base is similar to other QDA software (for example, NVivo), differing in that it offers only one level of hierarchical categorisation. The software is used to code the thematic statements identified in the first stage, with the coding procedure primarily referencing the annotated comments, but also taking note of the original text. Generally speaking, although the process of coding has been informed by the theoretical perspective of phenomenology, I have used the text from the transcriptions as the primary means for identifying the codes. In turn, those codes have then been categorised with reference to the specifically phenomenological concerns of the thesis. Thus, codes typically identify the text under terms such as 'optimal tempo', 'listening and responding', 'deliberate control', and so forth, while examples of the the thematic categories include 'awareness', 'intersubjectivity', 'time', or again 'shared / intersubjective sense of time'. In all over one hundred codes have been generated through the process, along with twenty code categories. However, some code categories are strictly speaking sub-categories of more encompassing terms, so that for instance, five categories refer to differing aspects of time and temporality.

The process of coding and categorisation was a means of structuring and organising the raw data of the transcripts, while the annotations provided the initial interpretive texts. In many respects these were purely formal procedures, although they still required a degree of reflection. The process of interpretation involved

111 Ibid.

reviewing and reflecting upon the original transcriptions, where recurring themes that emerged through the procedures of annotation and coding can be seen in proximity to one another. In the final stage of analysis I identified the core themes, and selected the sections of text that I judged best illustrate the themes and the issues involved. Inevitably, this was both a highly selective and intuitive process that aimed to penetrate to the essential aspects of the experience of music performance, yet without losing a sense of its inherent complexity and the various nuances and contradictions involved.

In summary, the methodology I have developed for this case study is a form of qualitative data analysis, where I have appropriated certain methodological procedures from human science phenomenology. My intention is to elicit the invariant meanings that the research participants attribute to music performance, but also to take the process further by relating these attributions to the phenomenological structures of time-consciousness, intersubjectivity and motor-intentionality. Importantly, the primary concern is not with a musician's reflective and theoretical understanding of their skills and their application, but the moment-by-moment structuring of the act of performance. However, how a musician understands their instrumental skills and the act of performance will have a considerable bearing upon the expression and articulation of their skill. In experiential terms, the product of such understandings are the performative acts, along with the shifting patterns of awareness that accompany them. By asking musicians to report on what they are aware of, and what they pay attention to, and how these relate to their own actions, it is possible to gather data that, appropriately analysed, can be used to articulate the relationships between the act of performance, as experienced, and the phenomenological structures and processes that subtend them. Proceeding in this

way offers insights moving in both directions—i.e., we come to understand something more about the experience of music performance by describing and interpreting it within a framework that encompasses time-consciousness, intentionality, subjectivity and intersubjectivity; but also that an interrogation of the experience of music performance yields clarifications into these phenomenological structures.

Chapter 5: Instrumental Performance in Time

In this chapter I present a descriptive, qualitative analysis of the experience of music performance. The chapter is divided into two parts. In section 5.1, I trace the phenomenal character of the performance of an instrumental skill, with particular reference to the implicit and the bodily aspects of instrumental coordination. The description is based upon reflections of my own experiences in playing and teaching a musical instrument, and draws upon the methodological principles of the *epoché* and the phenomenological reduction. The process is presented from an experiential perspective rather than through the observation of musical behaviour, by focussing on a particular instrument—the drum kit. The second part presents an account of the experience of performance based upon the reports and accounts of research participants. It thematises upon the explicit concerns that arise in the immediacy of performance, the objective musical sounds and qualities that arise, along with the intersubjective dimensions of performance. In section 5.2, I describe the aspects of the performance situation that are primarily attended to in the act of performance. Section 5.3 identifies the qualities and attributes of musicianship that the participants describe as essential to that act. In section 5.4, I summarise the themes identified in the course of the interviews and the subsequent analysis, and that are of particular significance to this study. The accounts have been developed, as stated, on the basis of phenomenological methods, and I have organised the presentation of these accounts with reference to phenomenological themes (the lifeworld, subjectivity, intersubjectivity, temporality and embodiment). However, in this chapter I have generally avoided presenting the descriptions, analysis and findings in the

terminology of phenomenology, and instead aimed to express and describe the emerging themes in the terms expressed by participants in the interviews.

5.1: Anatomy of an instrumental skill

In this section I describe the bodily *experience* of performing with an instrument, rather than the material or mechanical processes involved. The approach here is intended as being in keeping with the methodological steps of the *epoché* and phenomenological reduction. The procedure is in certain respects an adaption of an employment of the reduction to bodily movement as described by Sheets-Johnstone, and depends upon 'paying rigorous attention to what is there' as the movement takes place.[1] The intention is to elucidate the kinetic and kinaesthetic elements that are experienced in the articulation of a specific type of movement. I also draw upon certain normative assumptions concerning instrumental skills with reference to subject-centred perspectives. Although the description relates to playing a particular instrument—the drum kit—many of the aspects and concerns of performance described also arise or are paralleled in the performance of other musical instruments. Many variations occur in instrumental techniques within and across contrasting musical idioms, so we cannot speak of a definitive characterisation of instrumental skill. Nor is it possible to offer an exhaustive account. All the same, in the following I will be proceeding upon the understanding that a number of recognised principles, of one kind or another, need to be adhered to if a musician is to develop an effective style of playing.

1 Sheets-Johnstone, *The Primacy of Movement*, 121–123. See page 139.

5.1.1: Holding sticks

Hitting a drum could be likened to striking or kicking a ball: the majority of us can manage to do this, yet it is a basic and fundamental skill upon which a practitioner's overall ability depends. To perform such a skilled task requires a considerable degree of disciplined practice, and involves an integrated articulation of the whole body structure. In this subsection I focus upon one aspect of this skill; the handling of the stick. This means considering in detail an approach to holding a stick that permits an enhanced technical facility on a drum or percussive instrument.[2] In many circumstances it is possible to hit a drum without giving any real consideration as to how to handle the stick, although some minimal attention to the degree of tension in the hands does yield a marked improvement in both the sound of the instrument and the quality of feeling involved in the action. A developed ability that allows for swift, fluent and controlled movement, that is particularly evident in the performance of elite instrumentalists, calls for an acquired articulation involving specific kinds of movements from the wrists, hands and fingers.

Initially, two principal aspects should be considered: the degree of felt tension, and positioning the hands on the stick. As Dave Hassell observes, the less felt tension within the hands when holding an instrument the better. At the same time it is not possible to eliminate tension altogether—maintaining hold of a drum stick requires some minimal amount of pressure being applied. Hassell explains that the player should imagine they are holding a small bird in the hand—if the grip is too loose the stick, like the bird, will fly out of the hand, while the reverse will choke the movement of the stick.[3] An optimum degree of tension must be negotiated that is best

2 Hassell, *Thoughts-Concepts-Routines/Exercises*; Many of Hassell's considerations are echoed in Riley, *100 Tips for Drums You Should Have Been Told*.

3 Hassell, *Thoughts-Concepts-Routines/Exercises*.

described as the minimum that is necessary. The position of the stick upon the index finger is also important, and this draws in a number of considerations. A commonly accepted approach is to position the stick between thumb and index finger while cradling the remaining fingers around the shaft.[4] A particular location on the stick, known as the 'fulcrum point', should be the point in contact with the index finger. This lies in the region located a few centimetres behind the stick's centre of gravity—or 'balance point'—such that if the thumb releases the stick the tip drops down. The distance between fulcrum and balance points is crucial: too great, and the stick will have a 'heavy feel' as it strikes and rebounds on the surface, making it difficult to control: not enough distance is experienced as a lack of responsiveness in the stick.[5] An optimal location for placing the stick is on the index finger. A default position is over the second knuckle, yet the full range of possible movement is acquired by placing the stick near to the outer pad of the first finger which effects the opening of a space between the thumb and first finger. This slight change in position permits the whole hand to open up while still maintaining a hold of the stick, so that the fingers on the shaft of the stick are stretched out whilst still being in contact with it and the stick itself remains pivoted between thumb and first finger.

Allowing the hand to open up and consequently return to a closed position has a crucial impact. Instead of being manipulated by means of wrist movements while enclosed within a statically shaped hand, the stick can be controlled through the thumb and fingers, enabling lighter and more subtle movements which may also be executed at greater speed. More critically, opening the hand when playing allows for the release of felt tension within the hand and fingers.[6] As remarked earlier,

4 See Riley, *100 Tips for Drums You Should Have Been Told*, 22.

5 Ibid.

6 Hassell, private conversation.

holding and playing an instrument will always involve a degree of felt tension, but this condition is never static—if nothing is done to release the tension then it will be felt as gradually increasing in intensity. Even in the first instance, this initial building of tension can be inhibiting if not quickly released. If not released at all then in the course of time tension transmits to neighbouring areas, eventually affecting the entire body. The result of such widespread and intensely felt tension is stiff and rigid patterns of bodily movement, which in turn translate as tense, stiff and rigid patterns of decidedly unrhythmic sound.[7] In short, the hands must be allowed ‘to breathe’, to open and close so that tension generated by each stroke is not allowed to accumulate but is immediately released.

5.1.2: Hitting a drum

The act of striking a drum involves an articulation of the whole body structure, an articulation that encompasses the considerations of the remarks concerning the handling of a stick. Within musical pedagogy, an instrumentalist is directed to consider and adjust where necessary their entire body posture, so as to maintain a flexibility, responsiveness and freedom of movement within the muscles and joints, with the ultimate aim being to enable, as described by Kato Havas, 'a self-generating and free-flowing inward-outward drive'.[8] As described above with the hand, the whole body itself must, in a certain sense, ‘breathe’, meaning it should express a repeating pattern of felt muscular tension and release. For example, in preparing to strike a drum the shoulders open up so that the arms follow an arc-like and upward movement.[9] When striking the drum these bodily parts describe a downward

7 Hassell, *Thoughts-Concepts-Routines/Exercises*; see also Grindea, *Tensions in the Performance of Music*.

8 Havas, ‘String Playing’, 21.

9 Hassell, *Thoughts-Concepts-Routines/Exercises*.

trajectory so that the arms are returned to the side of the body at the moment the stick makes contact with the surface of the drum. This movement needs to be coordinated with those of the hand so that the opening and closing of each coincide. The fingers ideally remain in contact with the shaft of the stick 'like a sleeve',[10] enabling a more precise and controlled guiding and directing of the stick movement. The remaining parts of the body, namely the legs and feet, and also the head and neck, should move in concert with the arms and shoulders.[11] A further element here is that differing instrumental techniques are required for playing at varying dynamic levels. Quiet playing requires a greater degree of manipulation of the stick with the fingers: playing at a louder volume calls upon more of the upper arm, shoulder, and whole body structure. Another aspect is the degree of force and amplitude of movement that is brought to bear.[12] As remarked, where hitting a drum itself presents no great challenge to most, doing so with the refined and sensitive use of the fingers, which is necessary for quiet playing, requires a more studied approach.

I have considered the single action of striking a drum, in terms of the felt experience of movement involved—encompassing in particular the experiential pattern of tension and release. I wish to make two observations. Firstly, as indicated, the movement involved in striking a drum is of a complex system of interacting parts. As Hassell remarks, this should be thought of in terms of the organic movement of a bird in flight rather than mechanical movement of a machine hinged at the joints.[13] The movement of a single limb is itself experienced as occurring within a unified coordination of simultaneously moving body parts. Secondly, the occasion of striking a drum is also accompanied by the production of a certain sound

10 Ibid.

11 DeJohnette and Perry, *The Art of Modern Jazz Drumming*.

12 Sheets-Johnstone, *The Primacy of Movement*, 123–124. See also page 250.

13 Hassell, *Thoughts-Concepts-Routines/Exercises*.

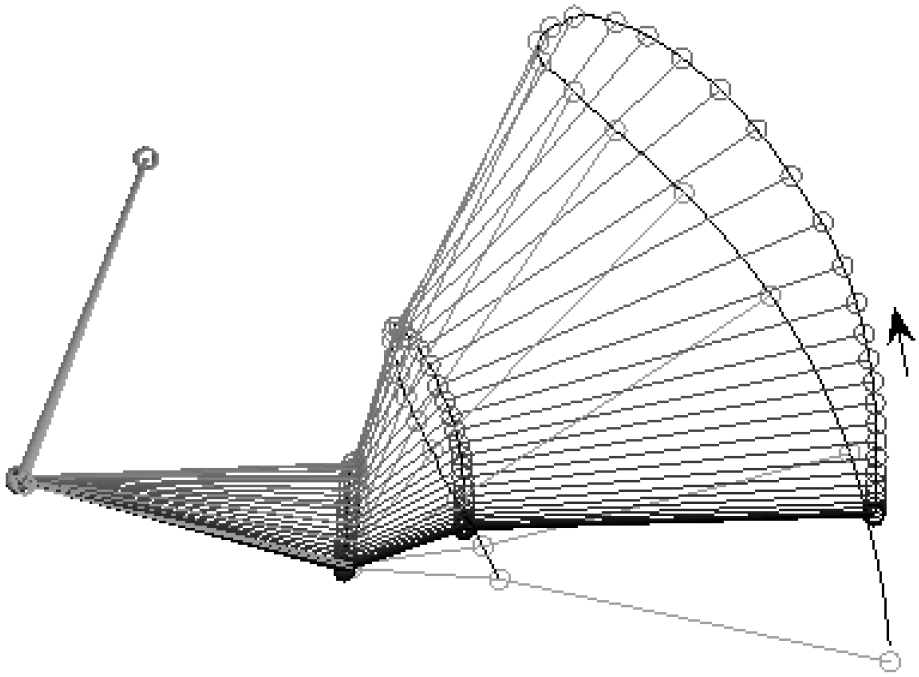


Figure 5.1: Schematic depiction of the trajectory of arm movements in striking a drum rendered from motion capture technology.

(Reproduced with permission from Sofia Dahl, Dahl et al., Gestures in Performance, 41).

whose qualities are dependent on the sounding objects, which is to say the acoustic properties of drum and stick, but also manner in which drum is struck. Moreover, the musician must attend to the outcome in both sonic and tactile respects, as this perceptual awareness serves to guide and direct the performed action as it is repeated.

5.1.3: Cyclic patterns of movement and sound

The performance of rhythm involves the constant repetition of bodily movements, and this is connected to the fact that striking a drum involves the active release of a felt tension. The ‘breathing’ of the body amounts to a cyclic process, an unfolding dynamic that continually returns to and restates the overall pattern of movements, albeit with an indeterminate number of graded variations. This pattern of movements

correlates with the patterned organisation of rhythmic sounds, where both are oriented around metric pulse. Furthermore, following the logic of musical structure, this cyclic patterning of movement and sounds temporally emerges and develops as a nested and/or complementary pattern of cycles within cycles. The movement involved in the execution of a single note or beat is incorporated within a series of movements extended over a single or multiple measures, or again through a musical or rhythmic phrase, which may itself be repeated any number of times, or be situated as a recurring motif within a larger pattern of repetition. By contrast, there remains a sense of linear progression, both within a recurring ostinato or musical line, and in the development of the entire song or piece. Thus, we can characterise the topology of bodily movement in terms of a 'temporal helix', so incorporating both the cyclic form of repetition and the linear form of development. The body may return to the same posture, or phase of a recurring bodily dynamic, but clearly it is returning to a structurally isomorphic, rather than literal, identity. The felt sense of movement will in certain respects shift, change and develop as opposed to being a recurring experience that is in each repetition absolutely identical.

5.1.4: Independence and interdependence

Up to this point of description, the focus has been upon the movement of a single limb—specifically the complex of shoulder, arm, hand and fingers. This in itself amounts to a coordination, yet clearly enough playing an instrument typically involves integrating the movement of multiple limbs, along with the voice and/or respiratory system. The point has been made that no limb, or part of the body, operates in isolation from the whole—in striking a drum, the action involves the entire bodily system making supporting or compensating moves, maintaining

posture, and passing through states of tension and relaxation—and this will clearly apply in extending the action to a repeated cyclic pattern of movements. When more than a single limb comes into play, the pattern of adjustments and accommodations involves additional layers of complexity. Typically, body parts do, in a certain sense, operate independently—they are deployed to perform distinct tasks, the extent of which will differ depending on the instrument itself—but again a symmetry is often evident, particularly in terms of style of movement, between the contrasting actions.[14] However, although we might usually speak of a symmetry in the style of movement, in the majority of cases a real difference in the actual configuration of movements is evident, specifically in the movements of each shoulder, arm, hand or finger at a particular moment. Contrasting actions must be brought into a coordinated, complementary whole, and moreover be developed to a high degree of refinement and precision.

The initial difficulty of coordinating between parts of the body arises from what may be a natural or habitual tendency to move them in either direct synchrony or as simple alternating patterns, or again through a symmetry of gestural form. Generally speaking, playing an instrument can require the hands (and/or feet and fingers) to move in similar ways yet not at the same moment, or again at the same moment but in radically differing shapes and trajectories. The capacity to bring separate limbs into coordinated movement must be acquired through a studied awareness of the various movements involved. It is often the case that the instrumentalist must slow the overall movement to the degree that they have time to explicitly consider how one part of the body is required to move in relation to the others, in part to overcome any tendency towards unreflective synchrony or

14 The extent of this symmetry may again vary according to the instrument in question; the movements of a pianist, for example, are more symmetrical than those of a string player.

symmetry. These types of coordination patterns must be repeated extensively, in a deliberate and reflective manner, until a sense emerges of a pre-reflective bodily anticipation of the movements involved. As this sense arises, the attentional focus becomes directed towards the pattern of movements as a unified whole, as opposed to alternating between seemingly disconnected and discrete actions. As it were, a muscular *gestalt* takes shape so that all parts of the body are implicitly sensed as moving in relation to one another. Although we might describe the movements as independent, in effect they become *interdependent*. This transition between awkward and deliberately controlled movement and integrated, automatic control is generally marked by a certain 'ebb and flow', in that initially a momentary sense of grasping the coordination as a whole arises, and then lapses before being recovered through further deliberate attention. Moreover, it can take a considerable amount of time before a sense of pre-reflective, controlled coordination is achieved and maintained.[15]

The sense of interdependent, as opposed to independent, movement is an important accomplishment in respect of the overall aim of instrumental musicianship. Moreover, the transition from deliberate attention to discrete movements and actions to a smoothly coordinated dynamic whole also lends itself to a musical or rhythmic style of movement. An intermediate player, who has a greater degree of mastery of a

15 The amount of time required to acquire a specific musical skill clearly depends on the nature of the skill itself, along with the understanding and capacities already acquired. Some coordinations might be immediately achievable, others require in the order of hours, or tens of hours of practise (for example, the fluid execution of a particular musical scale). Jim Blackley simply advises the learner to '[p]lay each exercise many times until control and understanding is attained'. *The Essence of Jazz Drumming*, 52. Academic studies tend to concentrate on the time required to develop expert musicianship, encompassing instrumental technique, repertoire and theoretical understanding, along with the motivational and pedagogic factors that might influence development. K. Anders Ericsson cites findings of a study at a Berlin music academy that suggest elite performers have accumulated over 10,000 hours of deliberate practice by the age of 20, with a significant proportion of those hours spent in solitary practice. Ericsson, 'Deliberate Practice and the Acquisition and Maintenance of Expert Performance in Medicine and Related Domains', 73; Ericsson, Krampe, and Tesch-Römer, 'The Role of Deliberate Practice in the Acquisition of Expert Performance'.

coordination than a novice, exhibits more fluidity in their movements; although again a degree of mechanical rigidity may still appear, as well as unfocussed looseness or tension, in comparison to the fluency and control evident in advanced and elite performers. In short, the more secure and consistent the coordination, the greater the sense of flow in the movement, and hence in the sound.

5.1.5: Summary

In this section a detailed examination of an elementary instrumental skill—hitting a drum—has revealed a number of aspects that instrumental performance typically involves and/or requires. In summary, these are: the use of refined, intricate and subtle movements, particularly of the hand and fingers; the involvement of the whole body structure in any coordination; the need for an optimal degree of felt tension (i.e., as little as is necessary); patterns of tension and release experienced at both local and global bodily levels; the attenuation of aspects of bodily movement and instrumental technique to facilitate variation and control; sustained, cyclic patterns of movement in both parts of the body and the body as a whole; a sense of interdependent coordination between parts of the body and the voice/breathe. Moreover, instrumental performance demands a reflective approach to the acquisition of skills so as to accomplish a largely pre-reflective control of bodily movements, within which an explicit awareness of the instrument and instrumental coordination is largely effaced.

5.2: Patterns of awareness

In the following sections I will offer an initial presentation (and analysis) of the themes that have emerged from the interviews with musicians. A point to note is that the responses of the different participants reveal a varying range of observations,

interests and concerns, along with contrasting emphases and evaluations of the many factors that are involved in musical performance, some of which were strikingly at odds with those of other participants. Nonetheless, certain correlations and agreements between participants lead to strong thematic indications. As mentioned in Chapter 4, the interviews with musicians focus primarily on three aspects of performance: which factors they were aware of, and/or paid attention to, in the course of a performance; the aspects of performance that are considered essential and/or important for a successful performance; and considerations of musical time for the performing musician. The first two of these aspects are the concern of the following section.

Early in each interview, research participants were asked to describe the kind of factors of which they were aware within the performance situation. The aim in doing this was to gain some sense of the unfolding patterns of awareness for a musician as a performance temporally progresses. The following extract offers an indication of the scope and variability of awareness and attention:

> I just try and listen.. really hard, and try and be aware of everything.. I try... to hear… all the notes that everybody's playing.... but it's difficult sometimes, because you can't focus on three things at once… maybe.. [your] saxophone player plays something, you go, 'ooh, what's that?',.. you recognise something… but then your focus is drawn away from what the keyboard player might be doing... there again, you should be able to hear it all.. the goal is to be able to hear everything at once, isn't it?[16]

The striking aspect of this quote is the inherent challenge of maintaining an appropriately focussed awareness within the immediacy of the moment. Ideally, the aim is 'to be aware of everything', to have an encompassing sense of what is taking place. Yet, at the same time, particular occurrences in and beyond the unfolding musical sound will draw or compete for attention, and in so doing demand a

16 participant_9_[4494:5429]. All quotations from participants include a character coding to aid identification of the quotations in the original transcriptions.

response. As a result, a continual tension arises between the need to focus on details within the musical sound and the ideal of hearing 'everything at once'.

Throughout the interviews the participants describe a large number of situational factors which typically come within their field of awareness. They also confirm the importance and challenge of maintaining a sense of focus, which emerges as a critical ability. Attention is typically directed towards: musical sound, time, other co-performers, the audience, instrumental coordination (which encompasses an awareness of both the musical instrument and the performers own active bodily engagement with it), rhythmic and musical structure, other background situational factors, and also seemingly inconsequential or irrelevant matters. A great deal of overlap emerges between the responses of each participant, although the emphases and elements they choose to expound and elaborate upon are quite varied. Overall, awareness is largely perceptual and empathic in nature, yet an underlying reflective and conceptual understanding continually informs, and is informed by, the flow of perceptual awareness. The field of awareness also exhibits a broad scope. Moreover, each of the elements identified is in itself highly complex and mutable. Musical sound, for instance, is typically composed of several distinct characteristics (e.g., tone, volume and timbre, along with harmonic, melodic and rhythmic structure), each of which is in qualitative terms potentially rich and varied. Each element is typically implicated in the perception of any other: musical sound manifests itself in time; as a sound produced by an individual through the bodily manipulations of a musical instrument; in conjunction with the sounds produced by other musicians; as located within an unfolding musical and rhythmic structure; and is something of which an audience will also be responsively aware. No aspect of the field of awareness is constituted in isolation from any other part. Further, the larger

field of awareness within performance is constantly fluctuating, and with that attentional focus is continually shifting from one aspect of the performance context to another. Moreover, attention is typically attenuating in accordance with expectations of how events are to progress and also the various, often unexpected, contingencies that may arise. It might be remarked that this is how conscious awareness typically functions, yet what is significant about music performance is the large number of potentially significant factors that are simultaneously at play, as well as the continually changing and developing nature of what is an essentially fluid situation. Arguably, attending to the various factors involved calls for an all-encompassing hyper-awareness.

In this respect, one way to parse through the complexity of performance is to take note of the phenomenological distinction between intentional act—the mode of attention, such as perceptual awareness, the focussing (and also widening) of attention, reflective and conceptual processes at play, the active manipulation of the instrument, ongoing evaluations, and the like—and intentional object and content—the musical sound, song structure, stylistic and temporal concerns, other musicians and audience, performance space, instrument and body, in their modes of givenness. My intention here is to elaborate on these initial remarks with due reference to this difference between the ‘what’ and the ‘how’ of intentional awareness. In the following subsections I will frame the discussion in relation to intentional content. Each of the identified elements will be considered in turn, based on the descriptions given by the participants, in the order of musical sound, other musicians, audience, bodily and self-awareness, and other background situational and non-situational factors. The significant exception is time, which will be discussed in the following chapter. Section 5.3 thematises music performance as intentional act.

5.2.1: Musical sound

The importance of musical and instrumental sound in performance can be gauged by the fact that it is one of the first factors identified by a number of the participants when asked what they pay attention to. One participant remarks that sound is 'the first thing that I am aware of',[17] while another describes the primary sense of his own instrument as being 'sound, constantly sound'.[18] However, although the point may be an obvious one, consideration of what is meant by the idea of listening to musical sound immediately draws attention to its inherent complexity. As one participant remarks, 'there [are] a lot of different things to listen to while you are playing',[19] yet it is not simply that many things might be heard, but that all such things are perceived as integrated together into a unified form. Typically, a musician has the option of listening to the sound of their own instrument,[20] to that of other musicians, or again, the sound of all the instruments taken together as a whole.[21]

Musical sound comprises a number of elements, the primary ones being tone, harmony, melody, timbre (or texture) and dynamics. It is also in continual flux, and although the fluctuations in sound are to a large extent determinable, it is not hard to see that a musician may actively explore a multiplicity of constantly shifting sonic horizons. Further, it is not necessarily 'sound' as such that is being heard, as the sound of other instruments is merely one aspect of what is being attended to. Musical sound can be understood in more encompassing terms as the development of an improvised line by a particular instrument, foregrounded against a recurring pattern

17 participant_9_[2093:3693]

18 participant_6_[38953:39137]

19 participant_4_[12866:13192]

20 participant_6_[2498:2870]; participant_6_[2894:3271]; participant_6_[3320:3802]; participant_7_[79702:80084]; participant_3_[38543:38940]; participant_5_[52561:52947]

21 participant_4_[12866:13192]; participant_8_[1010:1579]; participant_8_[1692:2274]; participant_8_[6832:7493]

of chordal tones and rhythmic lines. For example, one participant describes how he focuses 'on specifically the solo... so that I can try and respond to that one soloist, listening to his melodies, his rhythms'.[22] All the same, the participants attend to specific sonic qualities, particularly of their own instrument, such as tuning, tone and sonic textures.[23] One describes himself as 'constantly... focussing… on the sounds that I am making… constantly, you know, "Is that the right sound? Is that the right dynamic?"'.[24] This participant also talks in detail about other qualities of sound with which he is concerned, such as dynamic intensity and decay—the 'attack and release'—of his own instrumental sounds.[25] These are elements over which he exerts a direct control, but he does so with reference to the overall sound of the ensemble he is performing with.[26]

Although tone and tuning is a concern, judging by the comparative weight of responses the primary consideration in relation to sound appears to be dynamics.[27] We can account for this emphasis by noting that, all being well, the instrument is in tune at the outset of the performance and the musician clear about what key the song is being played in, whereas dynamics are determined by the musicians as the performance progresses. Certainly, other musicians playing out of tune or in the wrong key can be considered a serious problem, while a poor sense of dynamics 'reduces the.. chance of making proper music'.[28] Thus, from the outset, musicians will attend to the levels of volume, so that the dynamics of each are appropriate to

22 participant_8_[1692:2274]

23 participant_7_[79702:80084]; participant_3_[38543:38940]; participant_5_[52561:52947]; participant_6_[3320:3802]; participant_6_[40409:40598]

24 participant_6_[2498:2870]

25 participant_6_[72875:73250]; participant_6_[2894:3271];

26 participant_6_[2179:2474]

27 participant_2_[9017:9151]; participant_6_[1334:1625]; participant_1_[11622:11940]

28 participant_9_[2093:3693]

the levels of the whole band as well as the wider performance environment.[29] There is also a concern with varying and shaping the dynamics as the music progresses through and between musical passages, and this requires a mutual sensitivity and responsiveness of each musician to the dynamic levels of others.[30] More broadly, a consistent concern with sound and its attendant qualities is evident, encompassing the sound of a musician's own instrument, the sounds of others, and the sound heard as a whole. As such, it is a critical phenomenon that is responsively attended to, often needs to be regulated, and can also be creatively manipulated.

5.2.2: Other musicians

Along with sound and time, the participants identify other musicians as primarily taking up and occupying their awareness and attention.[31] Again, sound and time are generally implicated in the actions of other musicians in so far as they are of concern to what is taking place, and in turn this lends itself to an awareness of others primarily as producers of musical sound, 'as musicians' rather than as persons as such.[32] As one participant remarks, 'even people that I know extremely well, I am still listening to them playing music, and I am within that for sure'.[33] Another participant explains 'I need to know what they are doing... Am I doing something sympathetic to what they are doing? And *vice versa*, because if we are not, it is not going to work'.[34] Similarly, another observes that 'you have got to pay complete attention, to whatever they are playing… you have got to be totally focussed on it'.[35]

29 participant_9_[2093:3693]; participant_1_[11622:11940]; participant_6_[72875:73250]
30 participant_9_[21889:22505]; participant_5_[8306:8643]
31 participant_3_[23447:24017]; participant_2_[8653:8938]; participant_7_[8486:9258]; participant_9_[2093:3142]
32 participant_4_[18091:18184]; participant_6_[23326:23699]; participant_7_[22979:23396]
33 participant_7_[22979:23396]
34 participant_3_[30009:30377]
35 participant_4_[17623:17959]

The need to pay attention to others highlights the fact that a musician's own playing is constantly being referenced against that of others. This is not just in the sense of musicians needing to be in time and in tune with one another, but also because a co-dependence arises in relation to decisions concerning musical and/or rhythmic phrasing. As one drummer describes:

> I am listening to the bass player and the time, if it is four, or a two thing, or a broken up thing... and that is gearing where I am going. The bass can very much... drive... what I am playing on the instrument... if the bass starts to walk, I will follow it.[36]

Further, several different co-performers are present, and this may mean that a musician is 'aware of everyone that is there',[37] but also, as another remarks, that their 'focus will definitely shift between the different instrumentalists'.[38] Yet, attention may be primarily directed towards one particular musician on stage who has a particular significance for them (for example, typically a drummer pays specific attention to the bass player),[39] or again, in that they occupy a prominent role in the ensemble. The significance of the singer's role, for example, means that should any divergence occur in terms of how the song is to be interpreted, others will be overruled. As one participant remarks, 'if the singer is going one way and someone is going somewhere else, I will just ignore someone else. I will always support the singer in whatever way I can'.[40] Again, the fact that a musician draws another's attention may simply be because they have something more interesting to say. One participant explains, 'I might actually be trying to *not* listen to another player… because they are not particularly strong… there is more information coming out of the strong player, and it is just more interesting... that is a work of philosophy... this

36 participant_7_[8486:9258]
37 participant_2_[13319:13550]
38 participant_6_[1937:2130]
39 participant_3_[42883:43385]
40 participant_5_[19496:20053]

is just a tabloid'.[41] Thus, although any number of factors may draw a musicians attention to or away from other performers, and do so as and when concerns come to the fore within the unfolding process, the movement of attention is mediated by underlying normative evaluations. In turn, these concerns relate to the structure and dynamics of the relationships between the different instrumentalists and their specific roles within the ensemble.

The examples above indicate that awareness of others operates primarily in relation to musical interaction, in the sense that a continual anticipation and responsiveness to one another's playing is evident. Yet, other modes of interaction may also be at play. One participant explains that in performance he is 'watching the other musicians, listening to what they are doing, seeing if they are paying attention, [if] any of them are drifting off'.[42] In this case the attention takes on the form of monitoring the playing and states of mind of other players. Similarly, a player may pay attention to others in respect of wanting to convey a certain musical intention.[43] It is also clear that these participants can be very aware of whether that awareness is being reciprocated. More to the point, this is something that is expected. One participant remarks that she is 'listening to them... hoping that they are listening to me, and the things gelling',[44] while another claims that 'more important than your own perception, is other people's, how they are perceiving everything as well'.[45] One participant observes that when feeling confident about his control of his own instrument he will 'maintain... eye contact with the other people in the band',[46] presumably as a means of ensuring an ongoing mutual awareness between himself

41 participant_9_[9213:10026]
42 participant_3_[23447:24017]
43 participant_1_[26494:27105]
44 participant_2_[9530:9883]
45 participant_6_[18257:18406]
46 participant_3_[36592:36863]

and the others. All of the participants confirm that it is clear to them whether or not others are paying attention.[47] Moreover, this is apparent not just through the overt demeanour of others, but also 'through their playing',[48] so that an evident sense of ongoing communication 'is always when someone responds to someone else, and you are like, yeah, they are getting it'.[49] Moreover, it is possible to gauge a specific sense of what is being attended to, in that 'you get to a stage where you do become aware of what they might be listening to, or not listening to as well'.[50] Again, one participant observes that he 'can hear when somebody is not focussed… or I can hear when people are focussed on the wrong things',[51] while another remarks that he 'can hear them going through that thinking process, by the way that they play.'[52] Further to this, one participant confirms that he is more likely to have his attention drawn to other musicians when they are struggling, and this to the extent that it 'interferes with your thought processes, so then you can make mistakes yourself'.[53] Even if another player is not so much struggling but simply not paying heed to the musical situation, this can draw attention in so far as 'you can get incredibly frustrated… in that respect, "why is he not hearing this?"'.[54]

In summary, as should be clear from these various remarks, the participants are far from blind to the presence of other musicians. Indeed, they can be aware of others to the extent of being sensitive to the details and nuances of their internal states, which are revealed through their manner of playing. They are also aware when

47 In certain cases explicitly; participant_1_[7593:7846]; participant_2_[8077:8182]; participant_6_[22032:22147]; participant_5_[4982:5344]; the others more by implication.
48 participant_6_[19698:20471]
49 participant_6_[22032:22147]
50 participant_6_[16927:17907]
51 participant_7_[70078:70718]
52 participant_5_[4982:5344]
53 participant_1_[44603:45231]
54 participant_6_[18422:18990]

their own attentiveness is reciprocated, and when other musicians are not paying attention to the musical process, or again, not focussing and/or engaging in a way that serves the music. This points to a potentially high level of empathic awareness between musicians, one that is both attentive and responsive.[55] Moreover, this empathic connection between musicians is clearly crucial to the perception of whether a performance is a success or failure. It is when a musician is recognised as not paying attention, or not hearing the ongoing musical development, that a sense of frustration arises. The primary medium of this empathic awareness is evidently musical sound. Although the participants indicate that they also observe and communicate visually, it is primarily the sounds produced by other musicians that inform their perceptions and immediate judgements of and responses to other musicians. Further, as remarked, the directing of empathic attention is mediated by (or responsive to) the normative understanding of the role of each musician and the relationships that are pre-established within the social dynamic and structure of the ensemble.

5.2.3: The audience

When asked about their patterns of awareness during performance all but one of the participants make reference to the audience.[56] One participants states that ‘my awareness of the audience is generally pretty strong and I'm pretty aware of what's going on in the audience,’[57] and also that ‘they have a very big impact’,[58] while

55 The term ‘empathy’ has been used to denote a large number of related yet distinct phenomena, not all of which are consistent with one another. See Zahavi, *Self and Other*, chap. 9; Here, I am following Zahavi in understanding empathy as a form of other-directed intentionality, ibid., 114–115; Stein, *Zum Problem Der Einfühlung*, 14.

56 participant_6_[4258:4388]; participant_3_[23447:24017]; participant_2_[13718:13984]; participant_9_[2093:3142]

57 participant_7_[31217:31481]

58 participant_8_[25872:26110]

another remarks that he is aware of ‘who is coming and going, who is giving you dirty looks, who is smiling’.[59] However, the nature and quality of the experience of an audience is highly variable, and can depend on any number of contingencies.[60] The extent to which a performer will actively pay attention to an audience may also depend on the particular role they have within the ensemble at a given time.[61] Moreover, some ambivalence appears as to whether awareness of the audience enhances or undermines the quality of performance, and to what extent they have some impact upon it. Given that a performance is actually intended for an audience, it seems natural to suppose that a performer will look to engage and interact with their audience. For example, a performer more effectively involves an audience in the performance by maintaining eye contact with them.[62] Again, the audience may become more engaged with the performance through responding to the performer’s movements.[63] Moreover, as the quoted remark above indicates, performers are likely to be reciprocally affected by the audience. As one participant remarks, 'in some way they are affecting what you're doing even if it is just peripherally’.[64]

A positive sense of engagement with an audience can contribute to a better performance, or at least a better experience of the performance. As one participant describes, 'it's pretty obvious when the audience are listening, even if it's just... a small group of people [who] are actually listening intently, then that's obvious, you feel it… you just feel the energy of them'.[65] Indeed, a sense of a vital relation with the audience is considered to be essential to whether the music is ‘happening’, so that on

59 participant_3_[23447:24017]
60 participant_6_[26957:27316]
61 participant_3_[42883:43385]
62 participant_3_[44020:44780]
63 participant_1_[43261:43655]
64 participant_8_[26628:26829]
65 participant_9_[10104:10702]

such occasions, 'they have always been a part of it, so… there's something else that's happening, some connection'.[66] Specifying the nature of this connection is far from straightforward. As another participant remarks, 'it is important to me, but… it is very hard to know what that connection actually is'.[67] Although the presence and attention of an audience has the potential to positively impact a performance, they can also be experienced as a distraction, or an unwelcome presence, that can disturb a performer's composure.[68] In particular, the sense of being judged or appraised can have a considerable impact, often detrimental. It may simply be a case of catching sight of 'someone [who] looks like they are not enjoying it'[69] that can distract one's attention, although more problematic can be the presence of musical peers 'that you might feel like you ought to be impressing'.[70] Certainly, for better or worse, the manner in which an audience attends and responds to the performance, as well as how the performer projects him or herself towards the audience is a significant in the formation of the quality and nature of the relationship between performer(s) and audience.

Although the performance context can vary greatly, certain themes do recur. Generally speaking, at least some minimal empathic awareness of the audience is evident, but often awareness can be heightened. Moreover, the nature of the relationship can have a significant impact on how musicians play, and also their sense of whether or not the performance is successful. It would appear to be better to be engaged with the audience at some level, or at the very least for the audience to be engaged with the performance. The awareness typically encompasses a sense of how

66 participant_8_[83435:83752]
67 participant_7_[30598:30853]
68 participant_8_[32098:32476]
69 participant_6_[5479:6106]
70 participant_6_[5479:6106]

the audience are judging or appraising the performance, or indeed whether they are enjoying the experience. In turn, the effect of this is rarely neutral, but will typically enhance or be detrimental to a musicians ability to perform, and also to their evaluation or enjoyment of the performance.

5.2.4: The body, the instrument, self and unattended emails

As should be clear, a consequence of the horizonal structuring of awareness is that, at any given moment, many potentially salient factors in performance tend to be peripheral to a focal concern. Accordingly, the attention of a musician may be directed towards musical sound, while their awareness of other musicians and the audience is subordinated in relation to that, appearing at the fringes of the phenomenal field. Moreover, these elements may freely and rapidly interchange in accordance with some underlying rationale, or again become encompassed within a wider scope of attention (or hyper-awareness). However, the phenomenal field is not limited to these dominant concerns. Other important elements are also present to awareness, although tend to largely remain in the periphery or in the background, manifesting relatively rarely as the explicit focus of attention. Two principal examples of these subordinate concerns are the musicians sense of their own body and of the instrument. Moreover, more extraneous concerns, that have no obvious direct bearing upon the situation might also appear, largely in the form of daydreaming or internal dialogue. For example, one participant describes 'what you had for tea, what you might have watched on telly... the email that you might not have responded to', as 'random' examples of preoccupations that may surface in the course of performance.[71] Again, the same participant makes the point that 'the staff in

71 participant_6_[6513:7057]

the place, they can make such a difference',[72] by virtue of the exchanges and encounters between musician and staff, during the preparation prior to the performance, even though the staff may not be prominent or visible to the musician during the performance itself.

Interestingly, although all the participants acknowledge an awareness of both body and instrument, these are only described as focal in the event of some form of disturbance or challenge. In the normal and ideal course of events, body and instrument are perceived tacitly, as respectively unacknowledged presence and affordance (or again, an implicitly sensed extension of the body).[73] Typically, when the body comes to explicit attention, it is as a somatic distraction, such as a feeling of tension, perhaps demanding some kind of adjustment in posture or grip, or again as fatigue or hunger.[74] Similarly, the instrument typically only becomes the focus of attention when it is not working, or set up in a way that is unfamiliar or uncomfortable, or again when a musician is not entirely secure in their coordination.[75] For example, one participant describes how he might look at the fretboard as a means of guiding the movement of his fingers when he is not confident about a tune.[76] Similarly, internal dialogue and daydreaming about extraneous preoccupations are typically experienced as some form of distraction, or 'noise' that effectively displace salient concerns.[77] Intuitively, it appears that these phenomena emerge from the background of awareness, perhaps quite unexpectedly, rather than manifesting as an enduring peripheral presence. What is remarkable is how extensive and pervasive these kinds of intrusions can be. Indeed, one participant observes that

72 participant_6_[31034:31354]
73 participant_8_[43255:43706]
74 participant_8_[113261:113829];
75 participant_7_[77083:78111]
76 participant_3_[36324:36863]
77 participant_6_[66415:66705]

although the idealised scenario is of a musician being immersed in the flow of musical sound, 'quite a lot of the time it's not... there's plenty of other shit going on that is in your mind'.[78] Consequently, the experience is largely a matter of filtering out the 'noise', and maintaining attention on the salient aspects of the task in hand.

In summary, we can say that many factors arise within the field of awareness (as intentional objects) that may tacitly contribute to and modify the quality and nature of the experience (as intentional act). Ideally, attention tends to be explicitly directed towards musical qualities (sound, dynamics, timing, or the development of the tune), but may interchangeably be directed towards other musicians, and perhaps to a lesser extent the audience. A performer might focus on the sound of their own instrument or that of others, or again the two in conjunction, and will be attentive and sensitive to matters of dynamics, tuning and, as we shall see, timing. Moreover, they have to maintain that focus within a fluent situation, and contend with potential and real disturbances and distractions; the 'noise' of internal dialogue and anxieties, the disposition to daydream or lose focus, bodily tensions and fatigue, instrumental breakdown, being hungry and/or thirsty, and so forth. Moreover, although the performance situation is highly variable, and the field of awareness has a typically broad scope, in my interviews the need to establish and maintain a salient focus in the face of distraction was a recurring theme. Indeed, as I will discuss in the following section, the ability to do so emerges as an essential skill.

5.3: Essential elements of music performance

> If people are focused, and listening to each other, and enjoying what they're doing, then... that's good.[79]

78 participant_6_[7085:7214]

79 participant_2_[7923:8049]

A further line of questioning for the performers concerns their judgements and evaluations of other performers, and also of performance itself. This has been done on the supposition that it will reveal what musicians consider to be important, or essential even, to a successful performance. Musicians must bring a number of qualities and abilities to performance situation. Some of these might be considered essential only in relation to certain specifics, such as the playing of a particular instrument, or again a particular style, idiom or musical piece even. Trivially, we might say an 'ability to play' is essential, in the sense of being able to produce musical sounds in accordance with the tenets of a musical culture or theoretical perspective. In terms of the technical requirements, the essential concerns have been schematically outlined in section 5.1, and so will not be pursued here. In discussions with the participants it is taken as given that co-performers can play their instruments, and the responses tend towards considerations of how musicians work in relation to one another.

Given this, an initial point is that all the participants consistently and strongly identify two key attributes that they look for in fellow performers: the ability to listen; and a good sense of time and/or timing. As one participant states quite emphatically, 'timing is everything, and listening'.[80] This section is concerned with the ability to listen, along with other aspects of performance, including the closely related capacity to pay and maintain focussed attention. Other pertinent aspects considered essential to performance that I discuss include: the preference for a ‘team player’; the importance of a musician being relaxed and confident in their own abilities; the value of playing with energy, sensitivity and also a sense of enjoyment; and the ability of an ensemble to motivate an audience to respond and participate.

80 participant_2_[5275:5394]

5.3.1: The importance of listening

> These words should accompany you through your musical life: *listen, sound, control, time, consistency, repertoire, dynamics, discipline*. The order of priority [may] change from situation to situation. However, I would personally always place *listen* at the top of the list.[81]

> The most essential bit is everyone listening to one another. It's no good one person going off on an ego trip... you've all got to go there together.[82]

In their evaluations of the qualities they look for in other musicians they play with, all the participants identify the ability to listen.[83] Typically, it is either the first or second attribute to be identified, the other being a good sense of time. The primacy of listening is already underscored by the fact that in describing their patterns of awareness during performance, some participants will talk about the fact they are constantly listening and paying attention to sound. To someone unfamiliar with the intricacies of music performance the emphasis upon listening may, perhaps, be a little surprising in that they might expect a quality such as technical ability to figure more prominently. After all, in principle, most people can listen without difficulty, whereas to play a musical instrument proficiently is usually a significant challenge. Possibly for the participants, technical ability, in the sense of being able to produce notes and sounds from the instrument that are in tune, in key, and in time, is taken as a given, or at least is so to some minimum level. A couple of participants do make remarks to this effect.[84] (Similarly, in the interviews the participants typically assume that other musicians will have a working understanding of the musical material: the songs, or song styles and musical form). Yet, another player's technical abilities, in the sense of being a virtuoso or elite performer, is explicitly stated by some

81 Hassell, *Thoughts-Concepts-Routines/Exercises*.

82 participant_4_[4935:5316]

83 participant_9_[2093:3693]; participant_4_[4935:5316]; participant_5_[3954:4182]; participant_7_[15035:15211]; participant_3_[9235:10658]

84 participant_4_[5375:5477]; participant_5_[8645:9074]; participant_1_[5108:5248]

participants as being less important than whether they listen or not.[85] Certainly, any references made to technical ability are all made in precisely this respect.

The reason why listening is important to the research participants is that it is perceived as essential to the overall cohesion of the ensemble. A player who is not listening will not be playing sympathetically with other musicians. Typically they may play with inappropriate dynamics.[86] Worse, they may not notice that they are out of tune or playing in the wrong key or indeed the wrong style, or again they may play out of time or out of phase with the metre. However, the complaint about a musician not listening would appear to be less about meeting the basic rudimentary requirements of musicianship, and more about the fact that failing to listen undermines any sense of communication taking place and developing between musicians. As one participant remarks, 'if you're not listening to each other, then one is over there doing his own whatever... and not tuning into what's happening',[87] while another observes that 'it's like [being with] a great conversationalist... they'll listen to what you've got to say and give you time to finish your sentence.. that's what I look for in a musician... it's just nice to have someone listen to you'.[88] Put another way, a failure to listen implies little, or minimal, interaction is taking place: no sense of meaningful response or anticipation occurs in relation to the musical and rhythmic lines and directions taken. Moreover, the sense of interplay between musicians, whether in relation to nuances of timing and dynamics, or the development of the musical line, such as when engaging in call and response, is clearly valued.

85 participant_3_[13338:13586]; participant_9_[17921:18152]; participant_5_[67790:68410];
86 participant_9_[2093:3693]
87 participant_2_[9230:9883]
88 participant_9_[17921:19285]

5.3.2: Focussing, playing for the team, relaxing and enjoying the music

The concern with listening connects with two other matters. The first is that the expectation that a musician should listen is a specific instance of the more general view that they should pay attention to the immediacies of what is taking place, or as it is otherwise put, they must be 'focussed'. As one participant remarks, 'focusing and paying attention in music, unless you're a one man band, is crucial'.[89] Moreover, a—if not *the*— significant challenge is in being able to maintain an appropriate focus while being presented with the various potential distractions that are involved. As one participant states, 'it's hard, that stuff. I marvel at great musicians... you see it [the potential for distraction] going on, and they don't get distracted', underscoring the point that being able to maintain a focussed awareness is key to the accomplishment of a successful performance.

On occasions, participants talk about listening and paying attention interchangeably: when they speak of the need to pay attention it is evident from the context of the remark that they are actually talking about listening. However, paying attention may also relate to a larger perceptual field that encompasses sound in tandem with the visual presence of other musicians and audience and the performance space.[90] This may involve focussing in a way that is more abstract and encompassing:

> It is definitely focussing into a space... my focus is into a blank space... that is defined by all the other things that is around it...sometimes you have to concentrate on one thing, but I always have to come back to make sure my awareness is of all those things.[91]

Paying attention does not simply amount to being aware of salient features of the situation, but involves an active movement of conscious attention so as to maintain a

89 participant_2_[17394:17489]
90 participant_1_[6965:7299]
91 participant_5_[59050:61352]

sense of the situation in a manner 'that serves the music best'.[92] To pay (or focus) attention in a manner that enhances the performance demands that a performer maintains a psychological state of *being* focussed.

The second matter that connects with listening is the idea 'that people are working as a team',[93] or put another way, that they are not 'going off on an ego trip'.[94] In fact, the stated disinterest in technical ability appears to be motivated by precisely this issue: it is not that a player has technical ability that is necessarily problematic, rather that a pre-occupation with technique, or the desire to demonstrate a technical ability, is associated with a tendency to be self-absorbed, and to not properly communicate with other musicians.[95] The demand for a musician to be a ‘team player’ implies that they should be actively aware of other musicians, so that they are able to responsively anticipate musical developments. Moreover, a performer also has to register and respond to visual cues and verbal communications as musical directions and changes, or critical moments encountered, are negotiated and communicated through cues, gestures and eye contact.

Another essential factor identified in relation to performance, which arguably supports and sustains the ability to appropriately focus attention, is the need to be relaxed. While one participant remarks that he doesn't enjoy playing if he is not relaxed,[96] another takes the point further, arguing that 'the key thing is about being relaxed, if I'm playing with musicians that are relaxed... as a collective we become relaxed'.[97] Clearly, many factors and complexities therein may influence a musician's capacity to relax. The essential point, however, is that being relaxed is associated

92 participant_7_[33304:33687]
93 participant_2_[9230:9883]
94 participant_4_[4935:5316]
95 participant_9_[17921:19285]
96 participant_9_[28735:28980]
97 participant_5_[5527:6018]

with an ability to play confidently and without inhibition, and crucially, to do so with an attentiveness towards other musicians.[98] In relation to this point, we can note the relationship between being relaxed and breathing in a regular manner. Indeed, one participant comments that he has in the past had a tendency to hold in his breathe when feeling nervous or anxious.[99] There is a case that a musicians pattern of breathing will have some bearing on the timing of their movements. One participant remarks how 'my breathing might be inhibiting the way I'm playing', in that it is a problem when his breathing is 'not flowing'.[100] Another remarks that at one time he would hold his breathe when tense or anxious,[101] while a third conversely describes noticing that he was forgetting to breathe and how consequently he would 'tense up'.[102] In tensing up, the coordination and timing of bodily actions are likely to be adversely affected. This implies the need to maintain a deep, consistent and regular breathing pattern in order to sustain a relaxed feeling that supports controlled and focussed instrumental coordination.[103]

A final element to remark upon is *enjoyment*. We might readily suppose that enjoyment is the desired outcome of a musical performance, and this does accord with remarks made by a number of the participants. In fact, the success or failure of a performance is largely gauged in terms of whether or not the audience is motivated to actively engage with the music; that is, by stepping up and dancing to the music.[104] Yet, one participant emphasises the point that in consideration of the qualities other musicians bring to a performance, 'the borderline actually is... when you're playing

98 participant_5_[5370:5626]
99 participant_9_[28735:28980]
100 participant_6_ [54015:54493]
101 participant_9_ [28735:28980]
102 participant_8_ [43898:44372]
103 Grindea, *Tensions in the Performance of Music*, 114.
104 participant_3_[16130:16819]; participant_4_[6752:7048]

with people who are relaxed, and enjoying the moment for itself, that's when it becomes easy'.[105] That is to say, playing with an intrinsic enjoyment of the experience is not simply an end, but also the means for playing with energy, sensitivity and feeling, as it is identified with being present to the immediacies of the situation—that is, being 'in the moment'—rather than distracted and disturbed by preoccupations, tensions and anxieties. Furthermore, it is also associated with a more open and attentive attitude to other musicians, one that is free from the pitfalls of playing with an ego or bringing 'other agendas' to the performance situation.[106]

In summary, an essential quality of musicianship, that is repeatedly identified and emphasised, is the ability to listen, as an active, responsive attending to the sounds of other musicians, and the closely related capacity to assume and remain in a state of focussed attention to the unfolding situation. Moreover, this must be accomplished in the face of various distractions, anxieties and pressures that may compete for attention and disrupt a focussed state of awareness. As we have seen from the previous section, many potential saliencies might become the focus of attention. Whatever particular phenomena are primarily attended to, the suggestion is that attention should be directed towards musical sound, other musicians or the audience, while relaxing into the situation and enjoying the moment are recognised as facilitating the ability to focus attention in an appropriate way. Turning attention to the body or instrument is acceptable under certain circumstances, that is when necessary, but is far from ideal. However, self-preoccupation invites severe censure.

105 participant_6_[11980:12672]

106 participant_6_[11980:12672]

5.4: The art of paying attention

To an experienced musician, many of the observations and findings made here may appear to be quite obvious, if not trivial in some cases. In truth, no real surprises emerge; rather, merely confirmations of what might be expected. Nonetheless, I have presented a description that indicates something of the inherent complexity of music performance, along with the scope and variability of attention and awareness involved, as and within the immediacy of a temporally unfolding experience. The first section presents some consideration of the level of complexity of instrumental coordination, and the inherent challenges involved in acquiring them. It also emphasises that musicianship is in essence a bodily performance. In particular, the description highlights the point that instrumental coordination is experienced as a repeating felt pattern of locally and globally coordinated—which is to say, interdependent—bodily movements. At all levels, this cyclic patterning of movements is marked by the continual binary alternation between felt states of tension and relaxation, and a sense of interdependent coordination between parts of the body. Moreover, instrumental coordination is acquired through the deliberate and reflective focussing of attention upon bodily movements as they are performed. The later sections indicate that much of the technical and mechanical facility involved in playing an instrument is not explicitly attended to, but rather functions as a tacit resource that is pre-reflectively drawn upon. Much the same can be said of specifically musical and aesthetic understandings concerning how those skills might be deployed. We can also see confirmation that the explicit awareness that shapes the trajectory of a performance is primarily perceptual and empathic, directed towards sounds, musicians and audience.

A significant finding within this chapter is one that hides in plain sight, and generally speaking is taken for granted. This is that the performance of a complex task resides in the ability to focus and pay attention. In the case of music performance, the imperatives to listen and be a team-player are ultimately demands upon the functioning of the horizonal structure of consciousness. As explained in the previous chapter, in looking to gain a description of a musician's pattern of awareness, it was necessary to offer the participants some clarification of what might be meant by 'being aware', and this was done by familiarising them with the ideas of focal, peripheral and background awareness. As participants have described their changing patterns of awareness, one point that has arisen is that the manner and functioning of attention is itself an essential element of performative practice. That is to say, it is the ability to maintain a focused perceptual awareness, while actively engaging in a complex and fast moving dynamic situation, against a background of more tacit and peripheral phenomena that feature in the complexity of the event. The capacity to hold and focus attention in an appropriate way, towards appropriately salient aspects of the musical process, and do so in the face of a legion of potential distractions is an essential quality. The initial framing of the interviews drew upon an essentially static conception of the horizonal structure, which might be appropriate to the visual experience of a stable and unchanging environment. In applying the notion within a dynamic context, what comes to the fore is the inherently active and fluent nature of focalising attention, and the fact that it retains some form of equilibrium in relation to the performance of a skilled task. Indeed, rather than a state of attention, such an equilibrium might be seen as a state of being.

Clearly, a potential response to the claim made here is that the capacity to focus attention is hardly specific to music performance. Indeed, it is hard to conceive

of a skilled task that does not depend upon this ability. All the same, the evidence of the case studies is that it is an essential capacity in relation to music performance. Moreover, the question of the scope and range of intentional content as I have presented here (which kinds of phenomena are salient to the performance of the task, which tacitly subtend and frame the focussing of attention, and which merely inhibit or disturb), are all particular to music performance. Where the ability to focus is essential to music performance, having a sense of what is important to attend to is intrinsic to that ability. Moreover, where the type of performance situation, or musical style being performed, is more narrowly specified, the more particular are the saliencies of intentional content. For example, in the course of the interviews, the question of notation is barely mentioned (where it is, it is cited as a distraction). In other kinds of circumstances we might find that the manner in which a musician attends to notation to have considerable import. Again, certain points made here are more germane to the *performative* aspects of what is being considered. Performance demands an unbroken continuity in the execution of a task, as well as engendering a certain social or psychological pressure which can function as distraction, and it is for these reasons that the ability to maintain an appropriate focus is both essential and difficult to achieve. In many instances of skilled tasks, particularly those that are not ordinarily performed before an audience, these considerations do not apply to the same extent.

In phenomenological terms, a significant issue here is how to best characterise the capacity to shape and focus attention in the unfolding and dynamic performance of a skilled task. In Husserlian phenomenology, the horizonal structure of consciousness is typically referred to in relation to object-constitution rather than task performance. The phenomenology of Merleau-Ponty and Heidegger, along with

enactive phenomenology, does take up a concern with pragmatic engagements, but the particular issue of modulating the focus of attention in the performance of a task is not (to my knowledge) one that has been taken up. Characterising the structural relationship between the horizonal structure and time-consciousness, the question of how the attenuation of attention resides in relation to the passing awareness of events in time, is a matter that is discussed in Chapter 7.

Chapter 6: Musical Time in Performance

In this chapter I continue the description and qualitative analysis of the experience of music performance. The focus of the analysis is upon a performer's experience of the temporal dimension of music; how pulse, tempo, rhythm and groove feature within the act of performance. The intention is to identify themes that relate to musical time that have arisen in the course of the interviews, with a view to interpreting them within a phenomenological framework in Part Three. The purpose in doing this is to flesh out an answer to one of the questions posed in relation to the thesis: how do musicians understand and experience time, and the temporal musical phenomena of rhythm and groove? In turn this provides for an enriched understanding of the shared sense of musical time.

Section 6.1 briefly identifies in which respects time is significant for musicians. The subsequent sections consider the respective modalities of musical time. In section 6.2, I present the participant's descriptions of the factors involved in determining and maintaining an appropriate tempo. In section 6.3, I draw upon a number of important insights offered by the participants into the performance of rhythm and use them to elaborate upon the description of instrumental coordination. The concern in section 6.4 is with the experience of groove, in particular with the sense of connection between musicians that the possibility of groove rests upon. I do not present a separate discussion of pulse, although the experience of pulse figures prominently in each of the sections in relation to the specific modality that is being considered.

6.1: The significance of time

The participants in this study all take the view that having a good sense of time, or good timing, is crucial to music performance, as the following statements indicate:

> It is the basic building block for everything that follows… timing is the foundation that the building is built on. If it's built... on bad foundations the building will fall, and it's the same in music, it's paramount.[1]

> I think time is what unifies the musicians, and all the other stuff is maybe like window dressing.[2]

> It's all about timing isn't it? Music is about time, it's dividing time up... without time it would be impossible.[3]

Further comments underline the significance of time. We have already seen in Chapter 5 that for one participant, timing (along with listening) 'is everything'.[4] Others remark that time is 'more important than the notes that you play',[5] and that a sense of time is 'essential',[6] as well as being 'crucial' to the experience of other performers.[7] Again, one participant remarks, 'if I play with musicians that don't have a strong awareness of time, or feel, then that makes it difficult for me',[8] and goes so far as to describe it as 'the fundamental, structural field in which I am working… the Higgs boson of music, if you like'.[9] For these participants, then, time is the essence of music, a necessary pre-condition for its realisation, and functions as the principle means of unifying an ensemble.

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1 participant_1_ [37505:37884]
2 participant_8_ [94077:94384]
3 participant_3_ [48950:49344]
4 participant_2_ [5275:5394]
5 participant_8_ [93829:94032]
6 participant_9_ [29548:29597]
7 participant_9_ [30127:30209]
8 participant_5_ [3954:4182]
9 participant_5_ [89139:89472]

Time also features prominently in the act of musical performance as an aspect of attention or awareness.[10] Two participants identify time as their initial focal concern in the performance of a song.[11] One of these describes the process:

> I'm thinking about the sub-divisions of the music, the common sub-division. My counting, if I'm counting in, will be referenced to that and I'm really focussing on that in relation to the melody, about how the melody sits in relation to the tempo in it. Does it sit right? Is it something I can recall and will feel the same… within the music?[12]

This description of the commitment to time—the prominence of the concern with it and the extent of the measures taken to ensure that the tempo of the pulse and the feel of the subdivisions are both appropriate and secure—again indicates its importance.

Not all the participants identify time as an explicit concern during performance. One specifically rules out a preoccupation with time, stating that ‘if I start to become aware of it, that means something is going wrong’.[13] As he explains:

> The time should take care of itself. I don't really try and think about the time… that should be this invisible framework that you're unaware of, that you're just… creating on top of. It should be effortless, the time. It should not have to be something that I have to think about.[14]

These remarks are not actually a dismissal of the significance of time: this comment is made by the participant who describes time as 'crucial' to his experience of other musicians. The import of the statement concerns where time should lie within the field of awareness and contrasts with an explicit preoccupation with time. Taking together the various statements, the view that a sense of time is essential to the performance of music is clearly evident.

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10 participant_3_ [23447:24017]; participant_2_ [9017:9151]; participant_1_ [9813:9998]
11 participant_7_ [1289:1734]; participant_6_ [1334:1625]
12 participant_7_ [2099:2487]
13 participant_9_ [18:157]
14 participant_9_ [3809:4235]

The performance of contemporary popular music is predicated on the understanding that the ‘when’ of a musical sound in relation to the occurrence of others is something that matters, as is the degree of precision in these temporal relations.[15] In order to play music together, musicians must have a shared sense of temporal passage. In turn, this shared sense must translate into an agreed sense of pulse and tempo, around which instrumental actions are then coordinated. Fundamentally, musicians depend upon one another to maintain a reliable sense of pulse and tempo, yet there is clearly more to the significance of time than this basic concern. In the following, I will present the discussions with the participants concerning how they understand and relate to tempo, rhythm and groove, with the aim of identifying how considerations of time enter into the performance of music, and how musicians engage with and respond to the demands that they entail.

6.2: Tempo

> Ideally if you've got time, get the singer to sing you the first bar or two that he's going to sing... and count it off of that, because it's hard to predict... often enough you do it without thinking about it really, you just go for it.. and [if] it fits, it works.[16]

> Keeping hold of the metre of the music, [the] length of music is important... that thing of if you speed up the music is compressed, if you slow down the music... goes longer and saggier, and can lose its purpose.[17]

These quotations indicate two key aspects of tempo; initially determining tempo, and maintaining it once determined. Determining the right tempo for a tune at the outset can be a challenging affair. On the one hand, it can be difficult to be sure of what the tempo for a song should be; to recall London’s remark, 'finding the “right” tempo... is

15 Doffman remarks that context is significant, as ‘synchrony between players may have rather different bandwidths for different styles of music’. Doffman, ‘Feeling the Groove’, 143.

16 participant_4_ [59510:59842]

17 participant_7_ [3836:4099]

one of the subtlest and most difficult tasks facing the performer'.[18] On the other, getting the right tempo is important. The description of a tempo as ‘saggy’ points up a relationship between tempo and the affective impact of performed rhythm. As the tempo slows the music *feels* different; it starts to lose definition and energy. Similarly, if the tempo is too fast the music becomes ‘compressed’, which is to say tense, rushed, lacking in space and/or a stable centre. In these respects certain questions may be asked. How do we come to a sense of the appropriate tempo for a given piece of music? Is the sense of tempo mediated primarily through any particular sensory modality, such as hearing, vision or bodily sensations? How do musicians come to and maintain a shared sense of tempo? Indeed, there is an acute question concerning whether a tempo can be judged as ‘correct’ or not. Performers can and will be very specific about the tempo they want for a particular piece,[19] while the critical reception of a performance will typically incorporate an appraisal of whether the tempo is appropriate for the tune.[20] Yet, in many circumstances the same tune may be performed at widely varying tempos, suggesting perhaps that the choice of tempo reflects more the style in which the song is performed than a particular quality of the melody, or again that in certain cases the choice of tempo is a relatively arbitrary matter.[21]

6.2.1: Setting the tempo

On the face of it, setting a tempo is a simple matter, yet multiple concerns enter into the process. The interviews indicate that the melodic line may be tacitly or explicitly

18 See page 25.

19 participant_8_ [98825:99391]. Fred Hersch remarks that ‘[c]ertain tunes will feel really strange if they’re a hair too fast or a hair too slow’, cited by Berliner, *Thinking in Jazz*, 294.

20 participant_3_ [51101:51684]

21 According to Berliner, ‘Billie Holiday never performed the same piece at the same tempo twice. She constantly varies its mood to suit her own’. Berliner, *Thinking in Jazz*, 309.

referenced against a well known standard performance. By contrast, the primary concern might simply be with how the melodic line or groove sounds or feels at a certain tempo. An element that may come into play is, as one participant describes, 'the feeling of the arc of the whole set, a feeling of how the whole set should move'.[22] Another matter may be whether a player feels physically comfortable with the tempo.[23] For example, the demands a singer might place on tempo determination can be very exacting, and it is quite common (in a jam situation at least) for a song to be restarted because the singer is not happy with the given tempo. All instrumentalists will have tempo thresholds (at both ends of the spectrum) beyond which playing becomes difficult and instrumental control begins to break down.[24]

In the first instance, when participants were asked to describe the process of determining tempo, a common response is that they simply follow the indications given by the singer, or the lead instrumentalist.[25] In a sense this amounts to a misunderstanding of the question asked, yet it is significant insofar as it confirms that the needs and preferences of those who perform the melodic line are key determiners of tempo. A further implication is that tempo is primarily referenced against the melodic line. As one participant remarks, 'melody is the key... the tempo of the melody is really important'.[26] Although the preferences of whoever is holding the melodic line cannot be equated, as such, with an aesthetic sense of how it should be played or heard, in practice the two concerns generally coincide; if only because when it comes to the performance of a song it is typically the aesthetic judgement of the singer, or lead instrumentalist, that holds the most weight.

22 participant_8_ [107684:108002]
23 participant_8_ [98825:99391]; participant_3_ [53398:54147]
24 London, *Hearing in Time*, 27–30.
25 participant_8_ [95574:95923]; participant_4_ [59510:59842]; participant_6_ [84612:84889]
26 participant_7_ [72709:73066]

Participants describe setting the tempo as a matter of rehearsing the melody in some fashion, typically through singing or silently imagining the line.[27] As one participant explains:

> I will sing the melody.. 'doo-ba de-di-doh oo-bo-bah be-bi' [sings and snaps fingers, see figure 6.1]. That's the process, sing the melody, get the tempo, sing the sub-divisions, count the band in. It should take three seconds.[28]

A number of aspects of the process are worth highlighting. First, as mentioned, tempo determination involves a reference to a melodic or vocal line ('melody is the key').[29] Although it is possible to imagine a musician referring to a rhythmic pattern or instrumental line rather than the melody, none of the participants indicate that they ever do this. Certainly, none of the respondents suggest that they approximate to a beats-per-minute metronomic figure. Second, the line is always *sung*, either internally or out loud, as this establishes 'a comfortable tempo to fit [the] lyrics in, and deliver the correct phrasing and dynamics of the music'.[30] Arguably then, singing is the simplest and most direct means of accessing tempo, yet it also serves to communicate tempo. As one participant explains, 'sometimes you're dealing with people who don't know how to express a tempo, so I will often [say], "just sing..” and I'll get it off that'.[31] Third, singing the line invariably involves bodily movement, usually encompassing bodily swaying, clicking fingers and vocal articulations. This



Figure 6.1: Notated transcription of 'doo-ba de-di-doh oo-bo-bah be-bi'.

I am adopting the conventions of Hassell (2007) and Blackley (2004) for representing stressed beats with a dash (–), unstressed beats with a dot (·).

27 participant_1_ [13386:13861]; participant_3_ [51238:51929]; participant_5_ [85056:85790]
28 participant_7_ [73453:73711]
29 participant_7_ [72709:73066]
30 participant_1_ [13386:13861]
31 participant_6_ [84966:85476]

suggests that bodily movements, as much as heard musical sounds, are intimately implicated in the perception and judgement of tempo. In fact, one participant states that he will always physically sing the melody, explaining that 'I don't imagine it in my head, [because] generally it [imagining the melody] is faster than it is in reality',[32] and further commenting:

> I've had the experience where... I'm counting the piece of music in and it comes out [clicks fingers], and I go ‘whoah, whoah, hold on a minute' that's too fast’ [clicks]. It sounds right in my head [clicks]. It's actually too fast so I... feel a disconnect between my imagination and reality in relation to tempo.[33]

For this participant, the physical act of singing grounds a judgement of tempo, making it consistent with his aesthetic sensibilities.

It is tempting to suppose that gauging tempo through singing the melodic line is a linear process: first the melodic line is sung, from which a sense of tempo arises. Yet it only needs brief reflection to realise that this could not be the case. Clearly, the line is sung in tempo (more or less) at the outset, so the judged sense of tempo and articulation of the melody originate simultaneously. The same is true of bodily movements, which self-evidently include vocal articulations. When participants are asked to demonstrate the process of finding the tempo, they typically start by immediately moving and clicking their fingers as they sing the melodic line. It appears, then, that the sense of a specific tempo co-originates with the bodily movements and vocalisations of the melody that articulate it. Moreover, the embodied, rather than imagined, articulation of the melody lends itself to a more accurate gauging of tempo, whilst offering a further visible means of communicating the tempo to others.

32 participant_7_ [73151:73433]

33 participant_7_ [6205:7071]

The remark that imagining, rather than singing, a melodic line usually leads to a tempo that is too fast highlights the fact that tempo determinations are acts of judgement, and so subject to revision if and when found to be incorrect. The revision itself is clearly a further judgement, and an intriguing question arises here about the basis of these judgements. As I have described here, the participants primarily cite the needs of the singer, along with an intuitive sense of tempo that best suits the melody. Moreover, other factors are mentioned, such as referencing previous performances of the song, or again, the nature of the performance situation. One participant credits his ability to judge tempo to 'listening to a lot of music when I was very young', so that when it comes to performing a particular song the tempo is 'internalised in the first place... certain things that I've played before gives an idea of how it should go'.[34] Indeed, tempo determination almost inevitably involves some (normally tacit) process of referring back to prior listenings and performances, such as a particular recording that has been listened to many times,[35] or a more general sense arising from repeated performances of a song.

It can also be the case that in setting the tempo the audience will also come into consideration. One participant observes that in a jam night 'we have certain expectations in amongst the audience as well, "that's how a tune should go"'.[36] This remark underscores the point that past experience of a particular (type of) performance situation will strongly influence the determination of tempo, yet also indicates that performance is in many respects a shared, cultural experience, which leads to shared expectations. The nature of a performance situation may also be a determining factor. As one participant explains:

34 participant_3_ [51101:51684]
35 participant_8_ [96850:97139]
36 participant_3_ [55067:56056]

> You can take the same tune and you could play it as a ballad, and then really quiet... because it might be appropriate for... having dinner, or.. you can take the same tune... and roast it, you know, if it's more of a kind of listening thing, or a party atmosphere.[37]

Clearly, a number of situational, cultural and performative concerns enter into and inform the process of setting a tempo; the received view of what the right tempo should be, the nature of the performance situation, the arc of the set, and crucially, the affective impact (or feel) of a particular tempo. Yet, although these are important concerns, the actual act of setting the tempo is one of immediate judgement (where these concerns may be either tacitly or explicitly referenced), in which movement, sound and voice, and the timing of these originate together.

6.2.2: Maintaining a stable sense of pulse and tempo

The initial determination of tempo is one matter. Another is that, in the context of contemporary popular music, the general expectation in the course of a performance is for a consistent pulse and tempo, allowing for a degree of variation.[38] The comments from participants suggest that in many respects this is a matter of ongoing negotiation. One participant remarks that he is 'continually listening to other's perception... of the tempo of the music',[39] and further, 'trying to regulate it with eye signals [and] comments'.[40] Another observes that he is constantly assessing 'my personal sense of time compared with the other people in the band, to what extent [it is] meshing [and] integrated'.[41] From the perspective of each musician it is possible to assume a relatively active or passive stance in the process. For instance, one may

37 participant_6_ [86607:87085]

38 Doffman remarks, '[m]y own anecdotal experience… is that the general attitude towards tempo change is one of greater tolerance for an increase in tempo but not generally for the reverse'. 'Feeling the Groove', 189.

39 participant_1_ [10000:10118]

40 participant_1_ [10656:11039]

41 participant_3_ [56527:57270]

actively state the tempo, while another will ‘lock onto what it is that's being played, and fit in and work with that'.[42] In certain cases, one musician may feel the need to impose a more disciplined sense of the pulse upon others. One participant explains:

> If I'm playing with a... group of weak musicians [whose]... timing is a bit loose... I will widen my notes... so that it incorporates all of them, until they're all in my space, and then I will tighten it back up again, and they will... tighten back up into my space.[43]

Certain musicians, on the basis of their role in the ensemble, will be more actively involved in stating the tempo. As remarked, the preferences of the singer or lead instrumentalist carry the most weight in the negotiation of tempo. Others, typically the drummer and/or bass player, or again a dominant player within the rhythm section, will be expected to be actively communicate the tempo once established.[44]

In most situations, the expectation is that each musician will actively adhere to their own internal sense of the time. Typically the participants express a preference for playing with others who have ‘a good strong sense of time’,[45] and this implies a differentiation between playing with an active and passive sense of tempo.[46] One describes how he needs other players to maintain their own sense of the pulse in order for him to generate intensity and musical effects by means of ‘pushing’ and/or ‘pulling’ against the pulse:

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42 participant_1_ [24545:24802]

43 participant_5_ [25170:25622]: This remark is made by a bass guitarist, whose sound is of a relatively low frequency, and so might be characterised as having a greater 'width' or 'thickness' to it. It could also be said to have a greater 'weight', in that it often has the role of 'anchoring', and also the potential (as argued by this participant) to dominate both harmonic and temporal dimensions of the sonic space.

44 participant_3_ [56527:57270]. See also Doffman, ‘Feeling the Groove’, 189, 198; Berliner, *Thinking in Jazz*, 324–325.

45 participant_5_ [4213:4375]. Monson comments that ‘[a] jazz musician is said to have good time if his or her underlying pulse is steady, strong, and infectious, with emphasis on the latter’. *Saying Something*, 28. As Doffman remarks, the implication is that ‘good time... tends to be associated with an individual’s rhythmic drive’. Doffman, ‘Feeling the Groove’, 16.

46 The point is also made by participants in Doffman’s study. ‘Feeling the Groove’, 188.

> If I'm playing with a musician that doesn't have a good sense of timing and tempo, if I pull back... play behind the beat, they'll slow down, which disperses the tension. The tension is what I want... so then I'll push forward, and then they'll speed up. So I can't create tension, because any time I do that, they just follow me.[47]

Without a strong and autonomous, which is to say active, sense of the pulse and tempo, a musician is pulled back and forth in their timing and the desired rhythmic effect of tension and release fails to materialise. And yet equally, they must be sensitive and attuned to the tempo as it is initially stated for the tune. Although they may be passive in this respect, once they have a sense of the tempo as indicated by another musician, they are then tasked with actively maintaining it, so effectively anchoring the time feel and providing a secure reference for others to work against. One participant describes the matter in colourful terms:

> There is a definite thing where you physically feel it rushing or it holding back… and this is where, perhaps there are times when you have to lay it down, you know [laughs], when you have to go it's *here* [stamps foot] you motherfuckers![48]

Similarly, another participant talks about a particular ensemble where a license is in place to push and pull the pulse in quite an extreme manner, as he puts it, 'to the point of breaking it'.[49] The freedom to 'stretch the time', to express a certain 'elasticity' in the rhythmic line in relation to the pulse, depends upon each player actively maintaining an internal sense of the pulse so as to maintain the overall cohesion of the music.

Another matter to consider is in what respects intentional awareness is implicated in maintaining a consistent tempo. Two participants state that they explicitly count out the time, not just the pulse but also the articulation of the subdivisions,[50] although notably they typically do this at the outset of a piece. Once

47 participant_5_ [25740:26879]
48 participant_6_ [91350:91650]
49 participant_8_ [92332:92827]
50 participant_7_ [2099:2487]; participant_6_ [71922:72459]

they are in a position where they feel the articulation of the pulse is secured, they will direct their attention 'entirely to the listening', occasionally returning to an explicit monitoring of the pulse.[51] This focussing on the musical sound *per se* appears to be the ideal attentional mode during performance, so that although time and tempo are clearly an important concern, awareness of them are generally more implicit. As mentioned, one participant remarks that ‘if I start to become aware of it [time], that means something is going wrong’,[52] suggesting that ideally tempo is only an explicit concern when it is being initially secured, being occasionally monitored, or again has become destabilised and in need of some kind of correction or adjustment.[53] Otherwise, it 'should take care of itself'.[54]

In respect of maintaining a consistent tempo, the participants primarily refer to bodily movements.[55] We have already seen that one participant vocalises the subdivision as a means of regulating and stabilising the tempo, and this itself involves a bodily articulation. Another describes having a sense of tempo that is 'totally and utterly instinctive, it comes out of my body'.[56] Participants also describe mediating tempo through the body as being 'like walking', where 'you put one leg... before the other to move along',[57] although in practice this amounts to stepping from side to side, so that 'every moment on stage I am literally walking the tempo'.[58] This practice of walking the tempo is augmented by lateral body movements, such as

51 participant_7_ [5626:5957]
52 participant_9_ [18:157]
53 participant_8_ [102893:103217]
54 participant_9_ [3809:4235]
55 participant_9_ [29598:30126]; participant_5_ [86857:87184]; participant_1_ [39403:39899]. Some participants do also describe themselves as 'listen[ing] to the tempo' (participant_1_ [9813:9998]), where mention of 'listening to time' occurs more in relation to gaining a sense of rhythm or groove (of which tempo is still an intrinsic and significant factor) (participant_7_ [8685:9257]).
56 participant_5_ [86857:87184]
57 participant_1_ [39403:39899]
58 participant_5_ [87885:88133]

'swaying' or 'swinging'.[59] However, although one participant describes this as another means of maintaining tempo,[60] others identify swaying of the body as a means of projecting rhythmic lines as they are positioned around the pulse, which is itself secured by stepping from side to side.[61] As one puts it, 'there's the basic keeping time with the step, and then I can swing my body backwards and forwards, left and right, with my head, so I can start to build subtlety... I can... go off and do all sorts of fancy rhythmic figures without losing time'.[62] Walking the tempo effectively secures the pulse, and serves as a reference or basis for more expressive instrumental articulations.[63] In effect, stepping not only serves to maintain a consistent tempo, but also to provide and maintain an orientation for expressive (rhythmic) movements in relation to the pulse.

These variegated uses of the body to monitor and regulate the tempo are common practice, if not essential, to keeping the music in time, and indicate that the affectivity of bodily movement is an important mediating factor that serves to stabilise the sense of tempo. Two central aspects of this bodily regulation of tempo are apparent. The first is that self-directed movement of the body acts as a means of actively stating (and also communicating)[64] the tempo. The second is that the awareness of tempo is registered through bodily sensation (along with the act of listening). In one respect, the first of these holds quite trivially. The tempo at which a musician 'walks the tempo' is precisely the rate at which their body moves in step. It

59 participant_5_ [87885:88133]; participant_1_ [40524:41167]; participant_9_ [29598:30126]; as Dahl *et al* observe, the apparent purpose of stepping and swaying is to regulate timing, rather than the production of musical sound or communication. ‘Gestures in Performance’, 57.

60 participant_1_ [40524:41167]

61 participant_9_ [29598:30126]

62 participant_5_ [87885:88283]

63 Jensenius *et al* refer to these as ’sound-facilitating gestures. ‘Musical Gestures’, 23–28; see also Dahl *et al*, ‘Gestures in Performance’, 53–57.

64 participant_5_ [88846:89006]

is not that a sense of tempo straightforwardly regulates the stepping, nor that the stepping itself actively provides for the sense of tempo, but that the two co-originate. All the same, walking the tempo evidently makes for a more secure sense of tempo and orientation towards metre and pulse.[65] To walk the tempo is to ground the timing of instrumental actions within a more encompassing bodily sense of pulse. The second aspect, the felt sense of movement, is more clearly implicated in maintaining a sense of tempo. We have already seen the remark that ‘there is a definite thing where you physically *feel* it rushing or it holding back’.[66] Similarly, another states, 'it comes down to... the feel, you can definitely feel when it speeds up, you can definitely feel when it drags, more so'.[67] Thus, at the same moment, pulse and tempo are actively stated through motivated bodily movement, and passively registered through bodily sensation.

The suggestion that a musician has, or should operate with, a primarily felt sense of time complements the expressed normative supposition that the awareness of time should be implicit. Bodily sensations tend to be peripheral to the focus of experience, tacitly informing an ongoing sense of the situation. One participant contrasts operating with an ongoing felt sense of time with having an excessive and explicit concern with tempo *per se:*

> When a musician just has bad time... it tends to be they are trying to play the time, as opposed to feel the time... one of the ways that I... think about it is... when you're driving along the road, and you're trying to keep in between the white lines, you don't look just in front of the [car], you look to the distance.[68]

65 As Dahl *et al* observe, the purpose of stepping and swaying is to regulate timing. ‘Gestures in Performance’, 57.

66 participant_6_ [91350:91650]

67 participant_8_ [103813:104135]

68 participant_8_ [110712:111665]

Evidently, two issues arise here—the extent to which a musician is looking forward and anticipating the moment ahead, and where pulse and tempo explicitly lie within the horizonal structure of awareness—and there may be some conflation here of the two. All the same, the context of the remark is directed to the latter, and a conviction is expressed that an implicit, felt sense of pulse and tempo lends itself to a smoother, flowing sense of musical sound than does an explicit focus on time.

A crucial matter in relation to maintaining the tempo is the regulation of breathing patterns. We have seen in section 5.3.2 the importance, more generally, of being relaxed and breathing in a regular manner. The impact of failing to breathe is indicated in an anecdote offered by a participant, in which a sound engineer is trying to understand why a musician was consistently racing ahead of the tempo. In an effort to deal with the problem the click track had been turned up to the point it was 'making his ears bleed':

> He's like, "hang on... let's just try it again", so he stayed in the room while they were [recording] and Pete, just before he played, went "shh" [sucks breathe in]... and it was like "okay, okay, right..." and that was it, he was just holding his breathe.[69]

Clearly enough, an internal dynamic of tension and release is integral to the experience of breathing, and it can be clearly seen here how failing to breathe out has an impact on the inability to maintain a consistent tempo. Moving more quickly is simply an instinctive response to the overpowering feeling of tension that arises in this circumstance. Conversely, breathing in a controlled and regular manner is itself essential to maintaining a consistent tempo, facilitating as it does a relaxed and controlled sense of bodily movement.[70]

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69 participant_6_ [1334:1625]

70 As Grindea observes, ‘when breathing out, the body is in a state of balance, the tensions… evenly distributed’. Grindea, ‘Tension in Piano Playing’, 114.

The participants confirm that maintaining a consistent tempo is inherently challenging, and that the ability to do so is one of the factors that distinguishes a competent musician. This applies even at the outset of a song, where (in the context of a jam night) 'the tempo that... the song is being counted in... within the space of the first... four beats, can go dramatically faster, or slower'.[71] This problem can be attributed to a failure to be focussed on the initial count so that the tempo called is not clearly registered, or again to an insecure sense of tempo. One participant makes the point that a secure sense of pulse and tempo is cultivated through a prolonged process of self-conditioning, typically through individual practice with a metronome.[72] Aside from the import of attention and training, the same participant identifies an inherent instability to metric awareness. He correlates this with the heightened emotional state that is aroused during performance, where 'the adrenaline kicks in... awareness opens out... everything moves slower for them, so in the real world, that effectively means they play faster'.[73] It may be that emotional arousal impacts upon the ability to focus on musical sound, which in turn destabilises the sense of tempo, but it is also clearly possible that the arousal may have a direct impact on the perceptual judgement of temporal duration. From the perspective of the performer, time really does in some respect appear to ‘slow down’, or ‘speed up’. Again, it could simply be that an uncertainty takes hold as to how much time has passed in the movement from one moment to another. Whatever the underlying processes involved, emotional arousal can clearly have a considerable impact upon an individuals sense of tempo.

71 participant_1_ [10120:10644]

72 participant_5_ [72460:73189]. See also Doffman, ‘Feeling the Groove’, 290; Berliner, *Thinking in Jazz*, 350.

73 participant_5_ [77278:77842]

In summary, the determination of tempo for my research participants typically occurs through a process of reciting the melodic line, and makes reference to a variety of contextual and cultural factors. A sense of tempo that is judged to be appropriate for a melodic line co-originates with the articulation of that line. This involves the (implicit) influence of past performances along with an intuitive and culturally-informed aesthetic sense. The judgement of tempo also involves a felt bodily (kinaesthetic and proprioceptive) sense of temporal passage, a point that is emphasised by the fact that tempo is more accurately gauged by vocalising rather than internally reciting the melodic line. This point also applies to maintaining a consistent tempo along with an even sense of pulse, which are stabilised by deliberate movements such as stepping and swaying, and in some cases vocal articulations of the pulse and subdivisions. These movements serve to provide a secure orientation towards the pulse. They are both actively motivated and passively registered as respective means of stating and registering the tempo. Opinions diverge concerning the extent to which time or tempo should be at the focus of attention. Some participants report that they deliberately direct their attention towards the articulation of the pulse and the subdivision in order to secure and stabilise the tempo. Others remark that time itself should not be a concern, so that being focussed upon timing is to be distracted, and will result in a rigid rhythmic feel. Nonetheless, a consensus is evident that attention should ideally be directed ‘to the listening’, rather than narrowly focussed on tempo.

The interviews confirm that musicians come to and maintain a shared sense of tempo by establishing and maintaining an intersubjective awareness, where attention is directed towards one another and jointly towards musical sound. Indications of tempo are communicated through visual and aural gestures, and tempo

is continually negotiated through an active statement and passive following of the time. Even when passively following, it is important to maintain a strong and independent sense of tempo. Too much reliance on others to state the tempo leads to being pulled around as they modulate their timing around the pulse, and certain effects such as generating tension and the feeling of groove become difficult to achieve.

6.3: Rhythm

As indicated in section 1.3, the phenomena of rhythm is formally understood as the articulation of successive musical sounds, comprised of relative and absolute durations. It also bears more informal aesthetic meanings, such as ‘expressive gesture, animation and motion'.[74] These received opinions are reflected in the discussions with the participants, who put forward a number of distinct (although also related and overlapping) understandings of rhythm. Rhythm is identified by them as a structured pattern of accents at the metric level;[75] as the (nuanced) articulation of the subdivisions of the metric pulse;[76] and also as a synthesis of the two, into an articulation consisting of 'horizontal' and 'vertical' moments,[77] meaning a structured relationship of strong (or accented) and weak (unaccented) sounds. Rhythm is also described in terms of the 'inherent construction' of a musical style, in that many styles are characterised by specific types of rhythmic patterning which give 'shape' to the the music.[78] Again, rhythm is understood conceptually as an abstract idea, and instinctively, or pre-reflectively, as a felt, complex articulation of

74 Hasty, *Meter as Rhythm*, 3.
75 participant_5_[81522:82541]
76 participant_6_ [71922:72459]; participant_5_ [81522:82541]
77 participant_7_ [41033:41317]
78 participant_7_ [44678:45480]; participant_4_[25080:25533]

the body.[79] It is also recognised as an unfolding temporal phenomenon; as one participant puts it, 'one thing happens after another'.[80] In this section, I will aim to elaborate upon these understandings of rhythm, and draw out the relationships between them. However, the underlying intention is to work towards a characterisation of the experience of rhythm as it is performed, ultimately with reference to these understandings that musicians have of rhythm.

In the light of the various discussions with the participants, one of the more significant points about how rhythm is understood in a performative context is its relationship to musical style. In the following transcriptions, two of the participants explain the different considerations that come into play when playing a particular song or specific genre of music:

> The music... has to have an underlying rhythmic basis, which is usually a very simple thing... If I think of a particular example, there's... a tune... that has... an underlying sense of clave in it, so although a bass line can have lots of different notes going on, there's usually a 1-2-3 note rhythm [3-clave pattern] that underpins it.[81]

> If I'm playing swing, [I'm thinking about] what era? Is it... be-bop, is it post-bop, is it cool, is it Papa Joe old school, is it Chick Webb style, 20's big band? You know, rock, what's the hi-hat sound?... I'm always... thinking about that, all the time... it's because it's about style, understanding the styles properly.[82]

In these citations the reference is primarily in relation to rhythmic patterns that are reiterated within the metric envelope. In general, swing styles are subject to conventions concerning the distribution of stressed and unstressed beats across a rhythmic pattern (see figure 6.2). The contrasts between swing styles largely depends upon the positioning of the skip (or ghost) note within the swing pattern, and the

79 participant_7_ [39707:39816]; participant_5_ [3329:3647]
80 participant_5_ [68926:69185]
81 participant_5_ [10069:11374]
82 participant_7_ [44678:45480]

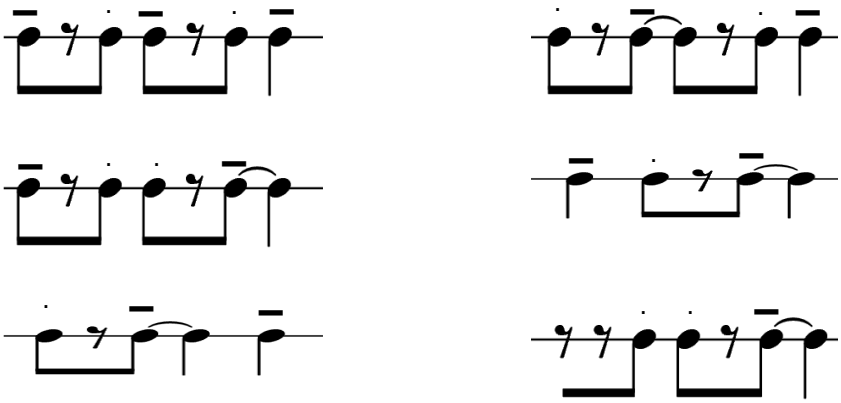


Figure 6.2: Conventions for patterning of stressed (–) and unstressed beats (·) for jazz and swing rhythms (3-beat motifs) .

Blackley, The Essence of Jazz Drumming.

relative degree of stress placed upon it.[83] This specification of style primarily applies both to the articulation of what is termed 'the ten-to-ten time pattern' as heard on the ride cymbal or hi-hat, yet it also extends to the patterning of stressed and unstressed beats of a rhythmic line (played for instance, as a cross rhythm or motif),[84] which may be played by any instrument in the ensemble.

A musical style is to a large extent (although by no means exclusively) given by the rhythmic forms that are specific to it, although the picture is slightly more complex than might appear from these citations. Within Cuban styles a number of different clave patterns may be employed within a given musical style. Yet, the same clave pattern, such as a son clave, may be employed within several differing Cuban styles, which are respectively distinguished through also having other specific reiterated patterns that are played against the clave pattern.[85] Again, Brazilian and Cuban rhythms share many features, such as the extensive use of syncopated patterns, yet nonetheless are quite distinct from one another, employing distinct

83 See Keil, 'Motion and Feeling through Music', 341; Berliner, *Thinking in Jazz*, 152; Doffman, 'Feeling the Groove', 221; Hassell, *Thoughts-Concepts-Routines/Exercises*; Riley, *100 Tips for Drums You Should Have Been Told*, 70.

84 Hassell, *Thoughts-Concepts-Routines/Exercises*.

85 Ibid.

conventions for the patterning of stressed and unstressed beats (see figures 6.3 and 6.4).[86] Although these comments are made in regard to Latin and jazz styles, all styles of contemporary popular music are subject to some form of rhythmic conventions.[87]

Rhythmic specifications of a style occur primarily at the metric level and through the subdivision of the pulse. At the metric level, styles are constructed around rhythmic structures (such as a clave pattern as mentioned above, but also the 2-4 backbeat, the reggae or ska 'chip', or the strong emphasis on the 'one' of funk).[88] A principal consideration in the subdivision of the pulse is whether it is a division of two or three, distinguished within contemporary popular music as 'straight-eight' and swing/shuffle time[89]. In some cases, as we can see from the second citation, the stylistic considerations can lead to very precise specifications of the nature of the swing pattern.[90] Indeed, one participant goes so far as to suggest that, in certain idioms at least, a particular song, even, will have its own specific swing or shuffle feel.[91]

In short, to 'understand a style properly', as indicated in the citations, is to have a grasp of these rhythmic conventions that figure in its construction. To perform a particular style requires a conceptual understanding that is sensitive to the nuances of musical traditions, and involves an awareness of stylistic conventions. These conventions, however, are not simply abstractions. For music to happen they must be

86 Ibid.

87 participant_5_ [69988:70465]

88 Doffman refers to these structures as ‘temporal models’. Adopting Zbikowski’s concept of ‘cultural models’, he argues that they are internalised as conceptual schemata. See Doffman, ‘Feeling the Groove’, chap. 7; Zbikowski, ‘Modelling the Groove’.

89 This correlates with the distinction between duple and triple metre, but should not be confused with that between common and compound time.

90 participant_7_ [44678:45480]

91 participant_5_ [81585:82541]; participant_5_ [82740:82922]



Figure 6.3: Brazilian caixa patterns, associated with samba style.
Accentuation falls on the first of a grouping of beats.



Figure 6.4: Cuban cascara patterns, associated with mambo style.
Accentuation falls on the last of a grouping of beats.
Hassell, Thoughts-Concepts-Routines/Exercises

realised as identifiable, structural features of temporally occurring musical sound. That is, as stylistic conventions, they function as pragmatic understandings that are involved in guiding and directing the articulation of coordinated bodily manipulations of the musical instrument as they unfold.[92] One participant describes how, 'once we have established [the] pulse, then for me... it's very much a swing thing, so... I'm very aware of how they are subdividing their time in between the pulses, and try and accommodate for that'.[93] The concern is with negotiating and applying a culturally-informed understanding of a rhythmic style within the concrete situation of performance.

The expression of rhythm is made with reference and relative to an ongoing sense of metric pulse. This is not simply a case of pulse operating as a structural

92 They will also serve as a means of identifying and interpreting a heard piece of music.
93 participant_6_ [71922:72459]

feature of rhythm. Although one participant describes his attention and concern as being with the pulse, so that he focuses on rhythm once the sense of pulse is established, he also speaks of rhythm and pulse as being interdependent. When talking about how he understands rhythm he explains, 'I think about pulse... it's almost like a circular thing... If you've got... a pulse that is time... everything around that is your way of expressing that pulse'.[94] Rhythm is not simply referenced against an ongoing sense of pulse, but is also the means of generating that sense, so that each is integral to the other. As with the pulse and tempo, the senses of pulse and rhythm co-originate, yet they do so as co-generative principles.[95] This participant emphasises this point a number of times:

> That pulse thing is really important. I think that quarter note thing, whether it's... playing bebop, swing music, where it's... a quarter note bass line... [or] house music... it's like... how are you going to express that pulse to the point where it disappears? You know, that bass drum... that is such a given constant that... you're not hearing it...it's already dealt with, it's there for you.[96]

The argument is that pulse is not passively registered as a temporal guide for the expression of rhythmic lines, but is actively stated and expressed through the performance of rhythm, so that the character of the music is distinguished by the manner in which the pulse is expressed. Intriguingly, where in academic discourse pulse is conceived at the outset as an unsounded and implicit structural aspect of sound, here the view is that the sense of pulse is interpreted as a sounded gesture, one which through extensive repetition becomes an implicit figure that comes to hide in plain sight.[97] Moreover, the participant describes here an emphatic expression of

94 participant_6_ [67876:68673]

95 In effect, the point is made by Danielsen. Her distinction between unsounded figure (pulse) and sounded gesture is drawn from Mikhail Bakhtin in the field of linguistics, who describes the opposition between them as one of ‘mutual realization’. Danielsen, *Presence and Pleasure*, 48–49.

96 participant_6_ [69651:70350]

97 See page 24.

pulse, which lends itself to the idea that in performance, pulse is experienced less as unsounded abstraction and more as visceral bodily pulsation.[98] Seen in this light, pulse is the affective counterpart of the active bodily statement of tempo as described in section 6.2.2.

A further aspect of the experience of performed rhythm is the contrast and connection between 'horizontal' and 'vertical moments'.[99] For one participant, getting an audience to move and dance is achieved by 'communicating the vertical moments... and articulating between that... the... horizontal'.[100] He offers the examples of a well known rock drummer to illustrate the distinction and relationship between these moments:

> The vertical stuff is if you... in a very simple sense, there's nothing simple about it, but if you take... John Bonham [the now deceased drummer for Led Zeppelin], [he] was a very vertical drummer, then 'boom!' 'bah!', big. So the vertical moments are [claps twice]... and [then] there's a beautiful horizontal, the sub-division. 'Fool in the Rain' [a track on the Led Zeppelin album 'In Through the Out Door'], classic Bonham, 'boom-de ge-de-gesh-de ge-de...', [figure 6.5] there's the vertical-ness, and the horizontal is the triplet... but [with the] vertical there's no question where the beat is.[101]

In the context of rock music, the 'vertical-ness' is primarily expressed as a statement of the pulse. It provides for a relatively rigid framework within which the horizontal moments are effectively embellishments positioned within the vertical structure, functioning as elaborations of that structure. As such, the vertical structure has a certain priority over the horizontal. Yet, in other musical styles this order of priority is reversed:

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98 The view expressed in the citation echoes an opinion of Don McBee, made when discussing the role of the bass player: ‘He’s the heartbeat... What I mean is all are listening to him... all are listening to that pulse, that sound for guidance’. Cited in Monson, *Saying Something*, 30.

99 Horizontal and vertical moments are distinct from horizontal and vertical discrepancies, see page 31.

100 participant_7_ [41033:41317]

101 participant_7_ [41324:43595]

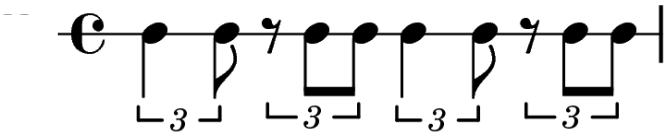


Figure 6.5: Notated transcription of ‘boom-de ge-de-gesh-de ge-de’.

> The thing gets complicated with playing jazz... as I try to teach jazz [snaps fingers], and young players that I hear playing jazz, you get this kind of [stamps feet and claps hands] 'boom' 'ka' 'boom 'ka', it's very vertical playing. Jazz is very horizontal, really, with articulation and vertical phrasing.[102]

In rock music the emphasis given by the vertical typically coincides with the pulse, lending itself to a sense of stable equilibrium within the overall trajectory of movement. However, a different sense of lateral movement arises when the vertical moments are positioned between the pulse. The technique is widely used in a number of styles. In Caribbean music such as calypso, and also Cuban styles, emphasis is played on the off-beat of the 'two' in a 3-clave (known as the 'bomba' beat), while stressed sounds are distributed within syncopated patterns across both off and on-beats.[103] In reggae a rhythmic device often used is to play a strong accent on the up-beat to the one at the end of a melodic line. Jazz frequently employs the same motif, which is sometimes referred to as the 'jazz clave'.[104] Moreover, the vertical phrasing within jazz that the participant refers to, as with syncopated Latin and Caribbean styles, largely involves a movement between on- and off-beats. The effect, when actively moving and engaging with the music, is to interrupt and destabilise the felt regularity that has been induced through moving to the pulse, instead creating a feeling of forward propulsion.[105]

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102 participant_7_ [41324:43595]

103 Hassell, *Thoughts-Concepts-Routines/Exercises*.

104 Ibid.

105 Ibid.. Danielsen argues that, in the context of funk, the destabilisation is the product of the nuanced timings of the downbeat (arriving early) and (late arriving) upbeat. The consequent affect is the tension of the ‘downbeat in anticipation’. See Danielsen, *Presence and Pleasure*, 73–79.

In summary, the principle idea taken from the interviews is that rhythm is inherent in the construction of a musical style. Contemporary musical styles are in large part defined by rhythmic structures at both the metric level and also in the articulation of the subdivision of the pulse. In particular, the integration of metric structures (such as the clave, backbeat or one-drop) and submetric divisions translates as the articulation of horizontal and vertical moments. We have also seen the argument that rhythm co-originates with pulse, so that it is oriented around an underlying process, yet is also a means of expressing that process. Finally, these understandings of rhythm in the performative context connect with the phenomenal descriptions of the articulations of bodily rhythms described in the preliminary study in section 5.1, which are realised as and through the embodied expression of rhythmic forms. Put another way, the cyclic patterning of movements is further defined by distinct types of emphases, these being of weight and/or force (the vertical), and also the durational (horizontal) relationships within the subdivision of the pulse, lending them a distinct affective morphology.

6.4: Groove

In section 1.3, I made the point that groove, in a similar manner to rhythm, enjoys a dual meaning. In a sense, we can say that groove simply is a form of rhythm, in that it gains expression as an articulation of stressed and unstressed sounds. However, whereas rhythm is often interpreted as both an essentially formal durational pattern of musical sound and a felt qualitative sense of movement, groove is by and large viewed in terms of the latter: where it may refer to a structure of intersecting rhythmic patterns, more generally groove refers to a particular aesthetic quality or musical affect. Roholt claims that we understand and relate to this quality through the affectivity of motor-intentional movement, yet the phenomena of groove is itself an

intersubjective accomplishment. Groove is differentiated from rhythm in the sense that it is a quality that emerges through the interactions within a group of musicians: groove arises through the interplay of specific types of rhythmic patterns, particularly at the micro-timed and metric levels.

A great deal of overlap appears between how the participants describe the specific achievement of groove and what they consider to be essential to the more general act of music performance. In both cases they will emphasise the need for an empathic connection between musicians; that is, for them to be alive and sensitive to the presence of other musicians, to listen closely and carefully to the musical sounds to which they all contribute, to pay a focussed attention and be aware and responsive to developments within the flux of musical sound and activity. Potentially another point of connection is that the successful performance of music, including the specific aspect of groove, depends upon musicians, through their instrumental actions, in some manner coalescing into a unified whole. The participants also draw a clear connection between groove and a shared sensitivity to time, where that sensitivity is expressed as a strong and pulse oriented rhythmic awareness that is at the same time intuitive, instinctive and conceptually informed. Groove is also associated with an assumed purpose of music performance—it can be said to be happening when people are motivated to dance and sing. This last, in particular, points to the accomplishment of groove as an intrinsic feature and primary purpose of the performance of contemporary popular music. I am taking the position that certain remarks made by participants that are specifically concerned with music performance can also be taken to apply to groove, so that in this analysis I will be drawing upon certain comments that are made in the context of discussing music performance as offering insights into the experience of groove.[106]

106 I will give a clear indication of when I do this.

When one participant remarks that 'the music... has to have an underlying rhythmic basis', the basis he is referring to is ultimately 'a sense of groove'.[107] The original citation continues:

> In any tune... I'm looking for what is the underlying groove, and then [to] build on that foundation. So the underlying groove then, should connect with the other players, such as the drummer primarily... [if] we can find that groove, and lock into it straight away, then there's lots of freedom to experiment. But if that doesn't seem to be sitting, then it can be quite hard... to make that happen.[108]

Where a sense of time or timing is essential to the possibility of music, groove might be more narrowly conceived as an inherent and essential quality of contemporary popular music. This quality can be difficult to achieve, as the following remark indicates:

> Groove, it's a very fine art I think... I've heard many bands and musicians attempt to play a groove and... there are... a lot of factors... that come into play for it to be right.[109]

The collective performance of music involves a variety of coordinated actions between musicians, which in turn presupposes a shared understanding of musical style. This shared understanding encompasses rhythmic understanding, which in turn implicates a shared sense of musical time (metric pulse and tempo). Group performance also involves a shared and dynamic orientation towards musical sound, and a mutual co-orientation between musicians, so that the occasion amounts to being a shared experience. Both of these types of orientation are highly anticipative and responsive forms of interaction. Ultimately, the shared understanding and mutual orientation that are necessary for coordination between musicians involves a sense of connection—or unity—arising between musicians.[110] As one participant remarks:

107 participant_5_ [10069:11374]; see page 221.

108 participant_5_ [10069:11374]

109 participant_1_ [52779:53176]

110 Although not expressed in these terms, the phenomena of connecting appears in Berliner's ethnographic study of jazz musicians. As with tempo, the relationships within the rhythm section are critical: in the words of Charlie Persip, 'the drummer and the bass player must be married.

> We become one as a collective, rather than a group of individual musicians standing playing at the same time, and for me that's the key difference... in that sense of becoming one whole unit, rather than a collection. Being a collective, rather than a collection.[111]

One of the primary aims of this section is to gain some sense of this process of unification. In the following I will aim to trace out the various aspects of a 'collective act' as my participants describe it, beginning with the shared understanding that must be in place between musicians.

6.4.1: Shared understanding and groove

> Playing together means having a shared set of assumptions... a sense of what's going to happen. You're all on the same path, all reading from the same hymn sheet.[112]

> When everybody's got a common... goal that they're chasing within the music, and for... each from the music, that's when that that really happens... there's a common conception... even if people are not necessarily hitting the same thing at the same time... the fact that everybody's understanding what they are hearing in a way that's complementing... everybody else... that's when that [groove] really happens I think.[113]

A vital pre-condition of groove is that the musicians must work upon the basis of a 'shared understanding of that same rhythmic idea'.[114] Although groove is primarily intuited as something felt, the possibility of groove also rests on an appropriate formal relationship existing between the intersecting rhythmic structures. In a trivial though nonetheless important sense, this requires agreement concerning the style in which the piece is to be performed and the consequent rhythm implications.[115] A song performed simultaneously by musicians in contrasting musical styles is not likely to cohere.[116] More significantly, the shared understanding also encompasses how that

When I listen to the drummer and the bass player together, I like to hear wedding bells'. *Thinking in Jazz*, 349.

111 participant_5_ [5527:6018]

112 participant_3_ [69748:70235]

113 participant_6_ [75363:76297]

114 participant_5_ [12791:13577]

115 On certain occasions in a jam situation such an agreement might actually not be reached.

116 See Berliner, *Thinking in Jazz*, 344.

style is interpreted and expressed, in particular the grasp each performer has of the rhythmic conventions inherent in the musical style. This is particularly so concerning the horizontal and vertical moments of rhythm: groove is essentially a matter of 'articulation and the vertical points'.[117] The realisation of groove presupposes vertical moments, which must be jointly articulated. Moreover, the reason why a performer must pay attention to the direction of the clave in Cuban music, for example, is because in following that direction the vertical moments will coincide and overlap, providing for an overall sense of cohesion and stability. Vertical moments also function as reference points—'centres of gravity'—around which other rhythmic patterns are oriented. The reggae 'one-drop', the backbeat of pop, rock and funk, and the strong emphasis on the 'one' that characterises funk, are all examples of vertical moments that function in this manner. Again, in many styles 'vertical-ness' is simply an expression of the pulse.[118]

In the specification of swing style, an essentially horizontal concern, each musician must be attuned to placement and emphasis of the skip beat by others. The degree to which musicians are able to do this varies greatly, as the following quote indicates:

> I have other musicians that I like to play with [be]cause... I like their rhythmic feel, that it is the same as mine... A saxophone player I play with sometimes, I love playing with him because... his quavers feel the same as mine, it feels like... we're propelling the same forward motion, you know, there's a connection of the sub-division.[119]

The citation implies that the capacity to connect is primarily evident within the dyadic quality of the relationship as opposed to the traits of an individual musician.[120] The compatibility of musicians, as described here, resides in the fact that they have

117 participant_7_ [57716:57913]. See also Danielsen, *Presence and Pleasure*, 115–122.

118 participant_6_ [69651:70350]

119 participant_7_ [15655:16136]

120 See also Monson, *Saying Something*, 56; Keil, ‘Motion and Feeling through Music’, 343–344.

the '[same] rhythmic feel', which is to say a shared understanding of the rhythmic subdivision. The shared understanding required between musicians functions at different levels. One level is clearly conceptual, as the grasp of a 'basic, abstract, rhythmic figure upon which everything else can flow',[121] where the understanding of each dovetails with that of the others. Another is more instinctive or intuitive, as an understanding mediated directly through the interactions between musicians in the immediate moment of performance. In the case cited here, the nuances of timing within the subdivision are experienced as complementary, and so as a shared understanding. A shared understanding is informed by both the rhythmic and musical style in a formal sense, and equally significantly, the manner of expression in its immediate, intuitively or instinctively given experiential sense.

In the performance of groove the interpretation and expression of the rhythmic conventions, and nuances of timing at the subdivision, involves (as with tempo) a degree of negotiation. As one participant remarks, 'how you are actually placing those things, around that pulse is entirely about... accommodating how other people are feeling it and... expressing it'.[122] For the individual musician, this can be a matter of either adjusting to the playing of others of attempting to impose upon them. The same participant continues that 'there might be a time where I might put my own concept on it... but a lot of the time... it's ... trying to make that work with the way other people are playing'.[123] Similarly, another participant remarks:

> I might have an idea of what.. the underlying rhythm [is], but they might be playing something different, in which case I then either have to impose my sense upon the other musicians by playing forcefully with that rhythm, or I have to adapt to the rhythm that they

121 participant_5_ [90968:91167]
122 participant_6_ [71922:72459]
123 participant_6_ [72485:72859]

> are playing, the underlying rhythm that they are playing, the sense of metre, or the sense of tempo.[124]

The negotiation can happen in relation to both rhythmic structure at the metric level, and also be concerned with the details of tempo and feel. It may typically be a process that a musician is consciously aware of, but this is not necessarily the case, as when 'without even realising it, [they] will tighten back up into my space'.[125]

From the discussions, it is not really possible to ascertain the extent to which musicians consciously focus on accommodating and adjusting to the rhythmic and timing patterns of one another, and how much this accommodation is an incidental result of simply listening closely to the music and one another. Even so, the key factor is whether or not the overall groove is felt or sensed as 'sitting comfortably' or 'connecting'. Arguably, reaching this degree of agreement coincides with time becoming the 'invisible framework' that doesn't require explicit attention,[126] or again where the pulse becomes 'such a given constant that... you're not hearing it... it's there for you'.[127] Ideally, in the negotiation of groove a point of agreement is reached, and thereon becomes less of an explicit concern. However, where an ideal of groove might be said to have been achieved, and so functions as a basis for other musically creative acts, an ongoing negotiation of groove still takes place as a refinement of the interplay between musicians.[128] Although the process of adjustment may be more tacit in this circumstance, the continuing negotiation of groove will still require an ongoing mutual awareness, for each musician to listen closely to the unfolding musical sound and so meaningfully respond to one another.

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124 participant_5_ [12791:14055]

125 participant_5_ [25170:25622], see page 212.

126 participant_9_ [3809:4235], see page 204.

127 participant_6_ [69651:70350], see page 225.

128 Keil describes a ‘constant relating, constant negotiation of a groove between players in a particular time and place with a complex variety of variables intersecting millisecond by millisecond’. ‘The Theory of Participatory Discrepancies’, 3.

Clearly, negotiation proceeds upon the basis of already existing shared assumptions and expectations. The extent of this prior agreement will depend on the nature of the performance situation, the degree of familiarity between the musicians, and/or the number of times they may have rehearsed or performed a song together. A broad and deep background of shared understanding provides a basis for a strong and coherent sense of groove to emerge. For one participant, this mature understanding between musicians is actually essential to establishing groove as a nuanced form of expression. He comments:

> You've really got to be playing together for a long while before it reaches that stage... if you've played together for a good while... everyone gets to feel the others' techniques... and then you've got the chance of pushing things in a different way.[129]

The clear implication is that a shared understanding develops over the course of time in which the experience of playing within a particular ensemble has an accumulative effect: players gain a more developed sense of one another's styles of playing, their tendencies and habits, and with that a more calibrated anticipative and responsive sense of how to interact with one another.

6.4.2: Groove as shared experience

This subsection presents three interrelated aspects of groove as shared experience, which we might term 'intensification', 'locking-in' and 'foundation'. In outline, the case I make relates to a number of characterisations of the experience of groove as being a particular form of interaction, one having a focussed, intense quality. Some remarks indicate that this sense of intensification directly correlates with the interplay of rhythmic patterns, which involves an interlocking, or forging together, of respective performed rhythmic lines, referred to variously as a 'locking-in', ‘merging’

129 participant_4_ [67325:68172]. The same point is made by one of Doffman’s research participants. ‘Feeling the Groove’, 156.

or 'connecting'.[130] Moreover, for some participants an essential pre-condition for musicians to 'lock-in' or 'connect' is that they should be (physically and mentally) relaxed.

Music performance involves a continual ongoing interaction between musicians, albeit a frequent complaint of musicians concerns others who fail to interact in a meaningful way. Keil's argument is that the phenomenon of groove arises directly through the interactions of musicians, which is why he refers to timing nuances as a form of *participatory* discrepancies.[131] As one participant describes, 'it's all of us interacting... they're the people that you're dependent on, and they're dependent on you, so it's all about interdependence'.[132] Another participant elaborates on this interdependence as involving, in part at least, a distributed and vicarious sense of agency:

> If everybody is reacting to each other, then basically, the keyboard player is playing the saxophone, and the saxophone player is playing the drums, and the drummer is playing the bass, because if I'm listening to the drummer and reacting, basically, taking my musical guides off him, then he's really playing me.[133]

Musical interactions involve a high degree of mutual and anticipative awareness, and have a distinctly intense quality about them, particularly in the case of groove. The idea that the experience of groove is one of intensity is indicated in the following anecdote:

> [The feeling of groove] is like a ball of energy. I've been in a situation where we've been playing and it's been grooving away, and the drummer's suddenly dropped his sticks, and... he's stopped... It was like someone had dropped a bucket of dry ice on the floor. Suddenly,

130 Doffman's respondents also make use of the idea of 'locking-in'. See ibid., 177.

131 Keil, 'Participatory Discrepancies and the Power of Music', 277. As Doffman comments, Keil's work 'may best be described as an attempt to re-focus the understanding of music towards a set of interactions rather than structures', 'Feeling the Groove', 27.

132 participant_4_ [20885:21305]

133 participant_9_ [5881:6362]

> all this energy was like a cloud, it suddenly spilt on to the floor, this cloud of energy... that's what it felt like.[134]

The metaphor of a 'ball of energy' itself offers a sense of groove as involving intensity, and this is further underlined by the contrasting sense of dissipation when the performance is disturbed, so that the 'ball of energy' becomes transformed into 'dry ice on the floor', or a 'cloud'. This sense of groove as involving intensity is also offered by another participant who talks about the importance of maintaining a rhythmic focus in the performance of groove:

> It's about keeping the core of whatever that rhythmical impetus in that music is, and not ever deviating from that, regardless of whatever you're playing... that's what's important for me... in music and rhythm.[135]

The suggestion here is that an essential aspect of groove is that once established, the pattern of rhythmic interplay is continually reiterated. This reiteration is not exact—in no respect is groove a case of monotonous repetition—yet the commitment to the rhythmic character of the groove, 'the core of... rhythmical impetus in that music', has to be maintained. To do otherwise, which is perhaps for an individual musician to attempt to play a rhythmical line that is inappropriate to the moment, or that substantially alters the manner of its construction, or again to deliberately or unwittingly change the tempo or the feel of the subdivision, means to risk losing the sense of focus and intensity that has accumulated up until that moment.[136] Clearly, it might be remarked that shifts and alternations in feel, tempo and style are commonly used devices in popular music, serving to offer contrasts in feel between different musical passages, or as a means of re-setting the groove.[137] However, between those

134 participant_9_ [24721:25796]

135 participant_7_ [40607:41007]

136 Similarly, Danielsen observes that in the African context, and for much the same reason, '[i]t is also necessary to stick to one rhythm without too much deviation, which might disturb the balance of the construction as a whole'. Danielsen, *Presence and Pleasure*, 55.

137 See, for example ibid., 181–184.

moments of substantial alteration in the structure or feel of the groove, a more consistent reiteration of the rhythmic interplay is essential, and this in part is because the feeling of intensity that arises through such reiteration is itself integral to the performance and experience of groove.

Another significant aspect of groove that some participants refer to is the process of 'locking-in' or 'connecting' to one another. The point is made in the first citation of this section:

> The underlying groove... should connect with the other players, such as the drummer primarily, but also maybe the guitarist and the keyboard player, and... [if] we can find that groove, and lock into it straight away then, there's lots of freedom to experiment.[138]

As already remarked, one participant talks about a shared rhythmic sense as 'a connection of the sub-division'.[139] Another participant comments in relation to music performance in general that 'you're gelling as one identity',[140] while again, one describes how 'there's often a bit of jostling... we each evolve our own space and then merge into each other very quickly'.[141] Another relates this sense of 'gelling', 'merging' and 'connection' directly to groove:

> When it grooves is when the musicians all interlock... when everyone is on the same page, and when everyone locks in, that's when it really swings, that's when it really grooves.[142]

The point also refers back to the fact that groove is based on a shared understanding, or the development of such, where 'how you are actually placing those things... is entirely about... accommodating how other people are feeling it and... expressing it'.[143] On the basis of a shared understanding of the rhythmic structures and nuances of timing relations, musicians are able to align and lock-in with one another. This

138 participant_5_ [10069:11374]
139 participant_7_ [15655:16136]
140 participant_4_ [21919:22192]
141 participant_5_ [23723:23975]
142 participant_8_ [80426:81373]
143 participant_6_ [71922:72459], see page 233.

process of forging a connection between musicians is integral to their becoming 'a collective, rather than a collection'.[144]

Connecting is also associated with the sense of intensity, as the following remark implies:

> You can lock in with somebody, but it still be a bit loose, maybe, and then you could lock in a bit tighter, and then you could really lock in... whether that's locking in temporally, or whether it's locking in feel-wise.[145]

In the interview, this description is preceded by an acknowledgement that groove may intensify to a greater or lesser extent as a performance progresses, and is in fact an elaboration of that point.[146] That is, the degree of intensification of groove is correlated with the extent that musicians lock-in, indicating that the experiences of intensity and locking-in are directly associated. If we allow this supposition to hold, this would suggest that the feeling of intensity involves (or may involve) an empathic connection.

In an apparent contrast to the supposition that groove involves a sense of intensification emerging through the interactions between musicians, the view from some participants is that the process (both of music making and establishing a groove) also requires a dissipation of tension. That is, another important aspect of groove is that musicians themselves need, in some manner, to *relax* into the process, although this is the specific sense of releasing anxiety and tension which would otherwise preoccupy and distract from the activity of performing.[147] Earlier I quoted one participant remarking on the difference between playing as a collective rather than a collection. He precedes this remark with a crucial pre-condition:

144 participant_5_ [5527:6018]

145 participant_8_ [86385:87040]

146 participant_8_ [85133:86164]

147 Following Høffding, we might understand this as a means of immersing oneself within musical passivity.

> In many ways, the key thing is about being relaxed. If I'm playing with musicians that are relaxed, that's much more fun, because as a collective we become relaxed and we become one as a collective, rather than a group of individual musicians standing playing at the same time.[148]

Another participant also acknowledges that the experience of groove involves a sense of being relaxed, although he is more equivocal about whether relaxing precedes the accomplishment of groove. After describing the experience of groove as 'peaceful, peaceful... and easy', he remarks, 'and a by-product of that would be to be, yeah, relaxed... I couldn't tell you whether I go there because I was relaxed or it makes me relaxed'.[149] For the former participant, the need to relax is referenced against the potential of internal tensions and anxieties, and/or other attendant patterns of internal dialogue, to inhibit self-expression. As he observes:

> There are conceptions of what it is to be a musician that get in the way of actually making music... it's a matter of becoming relaxed, letting go, being in the flow and finding the common groove.[150]

Tension and anxiety has the effect of distracting attention away from the specifically musical aspect of the process of performance:

> [I]f... you're playing with some musicians that maybe you've not played with before, or certainly not played with many times before, playing in a new venue... to new people... there might be... some tension and uncertainty at the start, which inevitably, well, hopefully [laughs] dissolves, and you become more relaxed, as you realise 'Oh no, of course it's going to be fine,'... and so you become more relaxed [and] that enables you to focus more on the listening.[151]

Relaxing then, is not so much a matter of losing focus as establishing a calm centre, recalibrating and enabling focussed attention towards the concern in hand. As such, it

148 participant_5_ [5527:6018]
149 participant_7_ [63640:64038]
150 participant_5_ [47037:47896]
151 participant_8_ [49981:51582]

allows for freer and deeper forms of interchange to take place between musicians. In particular, it allows for the intensification of the connections that form between them.

The interviews also indicate that groove functions as a foundation for creative musical expression:

> The groove can be used as a platform... much like a trapeze artist where they stand off a fixed platform, then leap off to the trapeze, and then the tricky work is done out on the trapeze, but the platform remains there, for them as a solid basis, from where the tricks will come from.[152]

> Once we [have] all... got a sense of the same groove, then I can relax, because I know the groove's there, and as long I keep that groove ticking along I can go off and do whatever I like, and they will have a sense of that.[153]

From these remarks we can see that in one respect groove is expressed as a consolidation of group cohesion that develops and intensifies as the musicians 'connect' and 'lock-in'. Once it becomes established, as a sense of trust between musicians, then there arises a secure basis that provides for 'lots of freedom to experiment'.[154] In one respect, this experimentation is the 'tricky work done out on the trapeze', which we would typically associate with the performance of a singer or soloist. Yet it also applies to the development of the groove itself, whether through the interplay of singer or soloist and the rhythm section, or simply within the rhythm section itself. The consequence is that, although one essential aspect of groove is

152 participant_1_[53897:54663]

153 participant_5_ [41548:43033]

154 participant_5_ [10069:11374]. The point is confirmed by Berliner and Doffman. See Berliner, *Thinking in Jazz*, 357; Doffman, ‘Feeling the Groove’, 189. Doffman makes the related point that ‘[the] shared timing of the players forms a uniquely expressive ground over which more overt musical gesture can be played out’, ibid., 11. In both studies, emphasis is also given to the roles and responsibilities of individual members within the rhythm section. For instance, Berliner mentions that horn players will focus on the hi-hat pattern or the ride cymbal, *Thinking in Jazz*, 358; while Doffman describes the walking bass as ‘the anchor for the more interactive rhythmic elements’, ‘Feeling the Groove’, 201; similarly, Phil Bowler claims, ‘[w]e’re the foundation on which everything is built’, cited by Monson, *Saying Something*, 29.

'keeping the core of whatever that rhythmical impetus in that music is',[155] by the same token groove is marked by a sense of development and progression. As one participant explains:

> [A good groove] begins to expand... it begins to grow so that something that started off as... a singular thing can then begin to grow to the point where... it takes on a life of its own… It's a bit like a chameleon; it's still the same animal, but it's changing colour, it's adapting to the different influences that the different musicians are introducing.[156]

Groove not only serves as a basis for creative expression, but is also a form of creative expression itself, primarily realised through the interplay between musicians. Moreover, given that groove arises through this interplay, the supposition that groove goes through a process of progression, intensification, expansion, or continual adaption and modification, entails that corresponding remarks can be made in relation to the quality of the interactions between the musicians. The manner in which musicians will connect and lock-in is subject to continual alteration and refinement, reaching moments or periods of equilibrium and also transition. Yet within this, there will be a stable pattern within the interactions, an equilibrium or invariance that serves to define the groove as 'still the same animal', or again, sustains the 'the core of... rhythmical impetus'.

In summary, the performance of groove is a shared experience that has its own distinctive qualities; of focussing and intensification, breathing and relaxing, evolving and mutating, unifying and coalescing. It is an occasion where groove is both the basis for creative musical expression and also itself an expression of the creative process. The possibility of groove depends upon there being a shared understanding between musicians concerning rhythmic structure at the metric level and the articulation of the subdivision of the pulse. This understanding can be

155 participant_7_ [40607:41007]

156 participant_1_ [52779:53896]; see also Danielsen, *Presence and Pleasure*, 159–160.

described in certain respects as conceptual, and in others as intuitive or instinctive. It is also an understanding that develops and evolves through tacit and explicit negotiation, an ongoing refinement of the interplay between musicians, that takes place in the immediate moment of performance. Moreover, the effects of the negotiations are both immediate and lasting, as the musicians come to develop not only their long term understanding of the song form, but also of the styles and manners of instrumental performance of one another, or again in a wider sense, gain experiences that offer insight into the process of working with other musicians. Consequently, the shared background of understanding also evolves and develops, offering an increasingly secure basis for performance, and so enabling a more refined —and ultimately more intense—enactment and experience of groove.

The analysis of the interviews has led me to identify three noteworthy and interrelated features of the experience of groove, which I have termed connection (locking-in), intensity and foundation. The experience of connection is predicated on the shared understanding of the rhythmic style, although the remarks above also indicate that the understanding develops through the forging of a connection. In essence, the connection presupposes an agreement in the placement of the vertical moments, along with the articulation of the horizontal. It also involves an agreement about and adherence to matters of timing and tempo, although this agreement may be subject to an ongoing negotiation that itself may be tacit or explicit. The experience of intensity is indicated by the metaphor of being held or contained within 'a ball of energy', and again confirmed by the need to maintain a 'rhythmic impetus'. Intensity is widely mentioned as a musical quality, yet these descriptions point to intensity as a visceral affectivity that emerges in performance, a feeling that correlates with the phenomenon of locking-in. Further, the possibility of intensity and connection

depends upon the musicians being relaxed, and so appropriately aware and focussed. Through the forging of a connection, groove is established as a foundation for creative musical expression. It is also expressed as and through an evolving and developing process, so that it is at one and the same time continually changing and mutating yet always 'the same animal'.[157]

6.5: Emergent Themes

In this chapter a number of themes relating to the experience of the temporal modalities of music have been identified. Taken together they offer answers to the question of how musicians understand and experience time, and the musically temporal modalities of tempo, rhythm and groove. The following is a synopsis of the key themes: pulse and tempo co-originate through the practice of referencing (singing) the melodic line; pulse and tempo are primarily mediated and expressed through listening and an embodied sense of temporal passage; the importance of maintaining an independent and autonomous sense of the pulse; rhythm is oriented around an ongoing sense of pulse and tempo, but is also a means of giving expression to the pulse; the performance (or enactment) of rhythm is experienced as the articulation of horizontal and vertical moments; the performance of rhythm presupposes a conceptual understanding of rhythm, which is moreover inherent to the construction of musical style; this conceptual understanding is given expression as an embodied act (is enacted), and experientially translates as a felt cyclic pattern of movement that is pulse oriented, and inflected by the articulation of vertical and horizontal moments; groove is experienced as shared expression and interplay, at the levels of the subdivision of the pulse and the vertical moments of rhythmic structure; the possibility of groove presupposes a shared understanding of rhythmic structure,

157 participant_1_ [52779:53896]

including the articulation of the subdivision of the pulse; the experience of groove is one of connecting or locking-in with other musicians; the experience of connecting correlates with a pulse-inflected and developing sense of intensity; groove critically functions as a foundation for creative self-expression, and does so on the basis of the connection formed between musicians.

Additionally, the findings of the previous chapter indicate that the capacity to lock in presupposes an ability to focus and pay attention to the playing of others, to make sense of what other musicians are doing and to anticipate and respond to them. It follows that the intensity of groove arises through a musician's sensitivity to the rhythm and timing of others. The ability of musicians to connect also presupposes an active sense of temporal passage (whether that awareness is focal or peripheral), one that is independently secure. Each player's sense of this must be consistent with one another, which is to say that underlying the shared sense of rhythmic structure and subdivision, musicians must have a shared sense of temporal passage itself. Thus, we can speak of the shared sense of time in a narrow sense, as the shared awareness of temporal duration, where this shared sense underpins a more developed intersubjective understanding and interconnection that arises within and through the temporal modalities of music.

Certain qualifying remarks are required concerning the data sample, which stem from the difficulties involved in seeking to extrapolate insights that apply across heterogeneous musical experiences and situations. The first is that the discussions ranged over a variety of performance situations, as outlined in section 4.3.[158] Participants were asked to refer to specific experiences as a means of ensuring they attend to the experience itself, yet they were not asked to describe the particular

158 Page 154.

circumstances of the experiences they reflected upon (at times, some details were provided unprompted). Participants did occasionally make the point that their answer to a question would depend on the nature of the situation. My sense is that in the majority of cases participants would offer answers that do generalise to a certain extent. Moreover, the aim of the analysis is to identify recurring themes, and a reasonable supposition is that these emergent themes can be extrapolated across the types of performance situations that were the subject of discussion. All the same, the particularity of the experiences reflected upon needs to be noted, and it has to be acknowledged that to abstract and generalise across varying experiences will lead to a certain flattening and levelling out, where potentially valuable insights concerning experiences of a singular nature are consequently lost.

A further point to note is that the findings emerge from a particular musical culture and a circumscribed range of attendant performance situations. Caution is required concerning the possibility of generalising the findings to other musical cultures that might be markedly different in relevant respects. For example, the culture of jamming, and performance of contemporary popular music stemming from African-American culture in the types of performance situations that the participants draw upon, is typically not as highly choreographed as in rigorously rehearsed performances, or again in traditions where notation plays a prominent role. Nor is tempo or timing something we might consider as open to negotiation through interaction when under the control and direction of an individual (a conductor or maestro), the musical culture less rhythmically oriented, or (quite clearly) in the case of solo performance. Nonetheless, I am confident that where the findings do not readily generalise, certain parallels are likely to be evident.

PART THREE: THEORETICAL DISCUSSION

In Part One I have formulated a position concerning the awareness of temporal passage and the perception of musical metre, which consists in an analysis of Hasty's metric projection in terms of Husserl's structure of internal time-consciousness. Part Three extends this analysis to the embodied and intersubjective dimensions of music performance. These theoretical developments draw upon the findings of the case studies that are detailed in Part Two. I also consider the finding that focussed awareness is critical to performance in relation to Husserl's respective analyses of active and passive consciousness, time-consciousness and the horizonal structure of awareness, and the interplay between these structures.

Chapter 7: Embodiment and Attention: the Instrumental Performance of Rhythm

The presentation in Chapter 3, of Hasty's formulation of metric projection in terms of Husserl's structure of internal time-consciousness, is primarily an analysis of the *perception* of metre. In this chapter, I look to develop and extend this analysis to consideration of the active bodily performance of rhythm. The analysis is also applied to Roholt's identification of groove with the affective dimension of motor-intentionality and Høffding's view that the body schema functions as a source of musical passivity. Throughout, the discussion is positioned in relation to the findings from the case studies and the theoretical perspectives presented in the literature review. The development of theoretical perspectives in this chapter contributes to the idea that bodily activity can be seen as the *expression of a temporalising consciousness*.

In section 7.1, I aim to consider instrumental performance primarily in relation to the sense of ownership. In particular, I develop Roholt's phenomenological account of the affective dimension of motor-intentionality.[1] I introduce Gallagher's discussion of the 'intrinsic temporality' of bodily movement, and develop this idea in relation to the morphology of movement as it unfolds in time. My concern in section 7.2 is primarily with the capacity to focus attention and its relationship with a sense of agency. I aim to do this by delineating the relationships between three phenomenological structures: the active dimension of consciousness; the horizonal structure of consciousness (as discussed in section 4.4); and the structure of internal time-consciousness. That is, I consider the nature of

1 See section 2.3.

agency as activity unfolds in the passage of time, and in relation to the ongoing focussing of attentional awareness that is critical to the success of (musical) performance. My claim is that the active movement of attention consists in an implicit power of egoic consciousness to modulate the affectivity of protentional content.

7.1: Bodily affectivity in the performance of rhythm

> I attempt to return the word "rhythm" to a central place in music where it can affirm the value of a kinesthetic, ongoing, open (i.e. *present*) involvement that would unite form and *per*form*ance* (the act of giving form or shape to).[2]
>
> Making music is an activity which is rooted in the body.[3]

In Chapter 6, I drew upon a participant's description of rhythm as being 'the inherent construction' of a musical style:[4] contemporary musical styles are in large part defined by rhythmic structures at both the metric level and also in the articulation of the subdivision of the pulse. In particular, the integrated expression of metrical-level structures and subdivisions of the pulse translates as 'the articulation of horizontal and vertical moments'. In Chapter 5, certain features were detailed of an elementary instrumental skill, which taken together amount to self-motivated and felt, cyclic patterns of tension and release. The articulation of horizontal and vertical moments that characterises the enaction of rhythm is intrinsic to this patterning of movements, as distinct types of kinetic emphases, of weight and/or downward force (the vertical), that punctuate a relatively smooth and nuanced flow of more refined, lateral movements (the horizontal).

2 Hasty, 'Just in Time for More Dichotomies', 280.

3 Storr, *Music and the Mind*, 24.

4 participant_7

These typifications of the experiential dimension of movement particular to instrumental coordination fit within a more general framework of description and categorisation formulated by Sheets-Johnstone. Taking up Husserl's reference to *animation* as the principle that connects subjective experience with the lived body,[5] Sheets-Johnstone identifies temporal and spatial invariants that she considers to be inherent to the morphology of bodily movement. Temporal invariants are evident as the degree of force of movement—its 'tensional' aspect—along with the 'projectional' quality of that force—so that one might, for example, move a part of the body 'evenly', or again, 'in a ballistic manner'.[6] The combination of these invariants provides for a particular felt temporal quality or style of movement.[7] Spatial invariants are identified with 'linear' and 'amplitudinal' aspects of movements, respectively denoting the sense that bodily movement is directed along certain trajectories that are accompanied by a varying degree of expansiveness.[8] Our knowledge of kinetic regularities—the felt sense of what it is to climb a staircase, to pick up a heavy suitcase, or again, take up a guitar and pluck the strings—relies upon our familiarity with these invariants of self-movement.[9] Taken together, particular instantiations of these invariants are fused into a 'kinetic melody', an unfolding dynamic that exhibits a specific qualitative, spatio-temporal morphology.[10] Further, for Sheets-Johnstone bodily movement involves a ‘qualitatively experienced temporality’ which ‘is experienced *physiognomically’*, meaning that ‘it is the feel of the movement... that is paramount’.[11] This qualitative dimension is illustrated by

5 Sheets-Johnstone, *The Primacy of Movement*, 113–115.

6 Ibid., 123.

7 Ibid., 125.

8 Ibid., 122.

9 Ibid., 124–125.

10 Ibid., 448. The term is borrowed from Alexander Luria *The Working Brain*, 179.

11 Sheets-Johnstone, *The Primacy of Movement*, 135, (emphasis in original). See also Stern, *The Interpersonal World of the Infant*, 53.

Daniel Stern's description of ‘vitality affects’, which are ‘captured by dynamic, kinetic terms, such as “surging”, “fading away”, “fleeting”, “explosive”, "crescendo", "decrescendo", "bursting", "drawn out", and so on’.[12] In short, vitality affects describe the felt, dynamic character of movement.

Gallagher argues that kinetic melodies are conceptually related to, and in some respects to be identified with, Merleau-Ponty’s characterisation of the ‘body-schema’.[13] The body-schema is theorised as a pre-intentional structure that subtends motor-intentionality by regulating the internal organisation of the body in movement. It is taken to underpin the tacit sense of the body in motion, and serves to automatically maintain posture, while also enabling and constraining bodily movement.[14] For example, it is recognised in music pedagogy that the whole body is involved in instrumental coordination. As Grindea observes, ‘the muscular coordination of the human body is such that the slightest movement involves a whole chain of muscles, which have to contract, relax and balance at the precise moment’.[15] In raising a stick, or reaching towards a fretboard or keyboard, the movement of the hand ideally originates in the lower back as an impulse that is transmitted through the shoulders and arms, while the overall posture is adjusted in compensation so as to maintain a sense of balance. As I have outlined in section 5.1, the action of an individual limb also requires the parts of the limb to move in a coordinated manner. This is also the case when we consider the interdependent movement of the limbs,

12 Stern, *The Interpersonal World of the Infant*, 54; cited by Sheets-Johnstone, *The Primacy of Movement*, 136.

13 Gallagher, ‘Dynamic Models of Body Schematic Processes’, 239–242. Gallagher’s position is a response to Sheets-Johnstone’s dismissal of the concept of the body schema.

14 Gallagher, *How the Body Shapes the Mind*, 24. The body schema is distinguished from the ‘body image’, which Gallagher describes as ‘a system of perceptions, attitudes, and beliefs pertaining to one’s own body’; See also Gallagher, ‘Dynamic Models of Body Schematic Processes’, 234–236.

15 Grindea, ‘Tension in Piano Playing’, 116; see also Gruner, ‘Voice Production and Body Co-Ordination’, 59; Westney, *The Perfect Wrong Note*, 90.

and in both cases these muscular coordinations should ideally synchronise with breathing patterns (and potentially vocal expression). Merleau-Ponty attributes this internal coherence and unity of bodily movements to the body schema, which he describes as 'the global awareness of my posture in the intersensory world'.[16] By virtue of the body schema, bodily movement is experienced as an integrated unity, or as it were, a dynamic and holistic bodily *gestalt*.[17]

As Gallagher indicates, there is a certain equivalence between kinetic melody and body schema: a kinetic melody can be seen as the dynamic expression of a pre-intentionally functioning body schema. Yet, Sheets-Johnstone's analysis more fully captures the morphology of bodily movement. As she remarks, a kinetic melody 'is kinesthetically constituted as an ongoing qualitative affective-kinetic dynamic'.[18] This description readily applies to the particular case of instrumental coordination. To take the example of hitting a drum: it can be seen that the prepatory upstroke involves a certain effort (the minimal necessary), which is accompanied by a growing tension that is released through the projection of the stick down onto the head. The action involved in the down stroke itself involves a degree of effort, which in turn generates its own felt tension and which is released by opening the hand and allowing the stick to freely return from the head. Moreover, the arms and fingers describe certain arcs of movement, which may be expansive or contracted. As a whole, the action involves an integration of these spatial and temporal invariants, and is experienced as a felt dynamic bodily gestalt of a particular character and following certain spatial-temporal contours; that is, as a specific composition of kinetic trajectories, marked by degrees of nuance and precision. Moreover, the movement

16 Merleau-Ponty, *Phenomenology of Perception*, 2012, 102.

17 See also Boast, 'The Musical Body', 26–28.

18 Sheets-Johnstone, *The Primacy of Movement*, 469.

may be performed and experienced in a specific qualitative manner, its manifestation recognisable as ‘energetic’, ‘vital’, ‘sensitive’ or ‘vigorous’.

The case of this particular instrumental action readily generalises to the greater complexity of the performance of rhythm; the bodily articulation of vertical and horizontal moments that are experienced as the felt, self-motivated counterpart of audible musical sound. The reiteration of these movements typically expresses a metric regularity, so that the re-initiation of a cycle may coincide with the beginning of a measure, or beat within a measure, and correlates with the metric grouping of the pulse. The reiteration may be displaced, as when performing a cross-rhythmic pattern, or again, a rhythmic motif might be placed at any beat (or half-beat) within a measure, in which there is a rest potentially spanning a number of beats before it is reiterated. In the following subsections I develop an understanding of the morphology of instrumental movement, through its constitution as a kinetic melody. Section 7.1.1 presents the position that motor-intentional movement is subtended by Husserl’s structure of internal time-consciousness. In section 7.1.2, I briefly outline Husserl's ideas on how a synthesis of retentions and protentions leads to the perception of objects and events. This allows us in section 7.1.3 to demonstrate how this synthesis also leads to the constitution of kinetic melodies. In section 7.1.4, I describe how the performance of rhythm can be interpreted as the metric ordering of a kinetic melody, on the basis of metric projection.

7.1.1: The intrinsic temporality of motor-intentional movement

Motor-intentionality rests upon an understanding of the lived body that exists 'neither as pure subject nor object, but in a way that transcends both possibilities'.[19] Put

19 Zahavi, *Subjectivity and Selfhood*, 160.

another way, '[o]ne's self is not merely *embodied*, but *bodily*',[20] so that we experience ourselves as a bodily subject,[21] where 'I am not in front of my body, I am in my body, or rather I am my body'.[22] As Romdenh-Romluc remarks, Merleau-Ponty's thesis is that 'the body is a form of consciousness'.[23] Moreover, the body is an *expressive* form of consciousness, 'a knot of living significations', 'comparable to the work of art' in that it gives expression to phenomena that cannot be adequately explained in terms of its functioning parts.[24] Yet, as Merleau-Ponty acknowledges, 'it remains for the subject to be temporal', so that we 'are called upon to forge a conception of the subject and time such as they communicate internally'.[25] This internal communication between subjectivity and temporality is established by Husserl through his analysis of time-consciousness, yet there is scope for further development with respect to the relationship between temporality and the subjectively lived body.

The concept of motor-intentionality is intended to convey an active bodily awareness and the ability to negotiate one's immediate surroundings, where these capacities are subtended by the body schema, and implicated in the felt dynamism of a kinetic melody. Necessarily and trivially, motor-intentionality, the body schema and kinetic melodies exhibit a temporal dimension: we understand perfectly well that our bodily movements take place in time. Gallagher argues that our deliberate movements are expressed by means of an 'intrinsic temporality' that points to 'deeper temporal processes'.[26] This intrinsic temporality is indicated by the presence of an

20 Thompson, *Mind in Life*, 245, (emphasis in original).
21 Ibid.
22 Merleau-Ponty, *Phenomenology of Perception*, 2012, 151; cited by Thompson, *Mind in Life*, 245.
23 Romdenh-Romluc, *Guidebook to Merleau-Ponty*, 62.
24 Merleau-Ponty, *Phenomenology of Perception*, 2012, 152–153.
25 Ibid., 432.
26 Gallagher, 'Time in Action', 420.

anticipative sense that, generally speaking, accompanies bodily behaviour. For example, when we turn a corner our head moves in anticipation of a change of gait. When infants raise their hand to mouth, the mouth opens in anticipation of the arrival of the hand.[27] Similarly, the manner in which an instrumentalist shapes their breathing and fingering patterns is informed by their anticipation of the subsequent coordination. This futural orientation is necessarily informed by the sense of movements that immediately precede the present instant. Echoing Bergson's description of the parts of a melody 'melting into one another', Merleau-Ponty observes:

> At each successive instant of a movement, the preceding instant is not lost sight of. It is, as it were, dovetailed into the present… [Movement draws] together, on the basis of one's present position, the succession of previous positions, which envelop each other'.[28]

Put another way, motor-intentionality is characterised by a temporal awareness that supports the general capacity to project bodily movement on the basis of its antecedent trajectory. As Gallagher remarks, the bodily system 'is capable of self-organizing its processing and its behaviour in a temporal fashion'.[29] This temporal awareness lends itself to specifically intended and precisely formulated articulations of movement. Gallagher's point is that an objective time cannot accommodate for this anticipative sense, which is in fact ubiquitous to all our bodily comportments. Rather, the 'deeper temporal processes' indicated by the intrinsic temporality of motor-intentional movement are the time-constituting processes of the structure of internal time-consciousness.[30] Accordingly, the temporal order of human experience and action 'is the product of a retentional function that orders information according to an

27 Ibid., 422; Gallagher, 'Dynamic Models of Body Schematic Processes', 242.

28 Merleau-Ponty, *Phenomenology of Perception*, 1962, 123; as cited in Gallagher, 'Time in Action', 421.

29 Gallagher, 'Time in Action', 420.

30 Ibid., 421–422.

enactive, pragmatic pattern… rather than according to some internal or external clock'.[31] In order to properly formulate an understanding of a kinetic melody in the terms of time-constitution, this statement requires some further clarification of what it means to 'order information' in a phenomenological sense.

7.1.2: Object and event constitution: temporal synthesis and the 'impressional array'

> [T]he constitutive accomplishment of the primordial impression and of [the] continuity of retentions and also of protentions that steadily modify the primordial impression is a unique, indivisible accomplishment; through this alone the immanent, temporally extended object, that is, a concrete individual object, can be given to consciousness.[32]

In Chapter 3, I partially detailed Husserl's claim that the subjective awareness of temporal passage arises through the constituting processes of primal impression, retention and protention. However, Husserl's theoretical position on time-constitution is primarily intended to contribute towards an account of the perception of enduring objects, as they are given in profile from specific perspectives, including the attribution of meaning to those perceptions.[33] In this respect, Mensch describes constitution 'as a layered process, where the constituted unities of one layer act as material to found the next'.[34] This process consists in a 'synthesis' of the successive presentations of an object in profile, by which the object is revealed as an enduring constant within the flow of impressions. The perception of the object may then in turn be constituted within a larger 'state of affairs'.[35] At a founding level, constitution begins with the recognition of the identity of an impression as it is retained (the

31 Ibid., 424.

32 Husserl, *Analyses*, 613.

33 According to Mensch, 'Husserl's account of constitution is an attempt to clarify phenomenologically [Immanuel] Kant's concept of synthesis', 'Husserl's Account of Our Consciousness of Time', 71.

34 Ibid.

35 Ibid.

sound of the hand clap (A) remains the same instance of that sound as it is reiteratively modified as the temporally departing retention r(r(...r(A)..)).[36] Should successive impressions present the same impressional content (for example, the sound of a sustained tone as it is played on a particular instrument), then the sequence of impressions (A, B and C), each departing, or 'running-off', through retentional modification, present an identical quality. Through the transverse intentionality of the retentional continuum (which is directed towards the sequence C, r(B) and r(r(A))), the same tone is grasped ‘as enduring through successive time’.[37] This grasping occurs as a synthesis of presentations that arises through a merging of phase-points within the retentional continuum, where the contents of retention are ‘similar’ or ‘harmonious’:

> The result of the action of retention is “a continuous merging according to similarity”.[38] Unities achieve “prominence,” that is, stand out against their background, insofar as the similar qualities of their contents re-enforce each other and, hence, achieve a “contrast” with the heterogeneous elements.[39] Thus, as we continue to regard some object—Husserl’s example is a copper ashtray—the impressional contents that strike us from the part of our visual field that it occupies have a qualitative similarity, one that achieves a certain prominence in the retention of this material.[40]

The synthesis of perspectives and profiles discloses the enduring and concrete object (the copper ashtray) in its manifold of manifestations. Moreover, it is recognised as a transcendent object; as existing objectively beyond consciousness. Similarly, the process of synthesis allows us to recognise qualities that are sustained when a melody is performed within the changing flux of sound, such as a specific tone, or again the particular sonic qualities, textures and timbre of a particular instrument. It also enables us to delineate the specific morphological qualities of an intentional

36 See section 3.2.2

37 See Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 93–94.

38 Husserl, *Die C-Manuskripte*, 298.

39 Ibid., 295.

40 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 142.

object, the shape and form of the ashtray as it is perceived through varying perspectives, or again the specific harmonic and rhythmic patterning of a melodic line as it unfolds in time.[41] Synthesis is accompanied by an interpretive process where the emerging perception is attributed a specific sense. The interpretation informs the perceptual process, whereby the interpretation sets up certain expectations (through protention) which may be fulfilled or otherwise as the perceptual exploration of the object continues.[42] These processes of synthesis—the merging of impressions into perceptions of enduring objects and events, that have a defined and temporally ordered shape and character—along with the interpretive (and thus, anticipative) intentions that accompany them, partially comprise the phenomenological understanding of Gallagher's 'retentional function that orders information'.

This schematic analysis of constitution highlights the important fact that impressional awareness is inherently complex; a phenomenon that can be characterised as a structured composition of primal impressions, so that the constituted world appears by means, as it were, of a (primal) 'impressional array'.[43] For example, an instantaneous cross-section of musical sound can, in principle, reveal an array of sonic qualities, which musicologists describe as occupying a 'sound-box'.[44] In the course of time some aspects of an impressional array remain qualitatively consistent, while other aspects vary. Through an identification of the

41 See Schütz, 'Fragments on the Phenomenology of Music'; Clifton, 'Music as Constituted Object'.

42 Mensch, 'Husserl's Account of Our Consciousness of Time', 77–78.

43 The term 'array' is borrowed from Gibson, although the sense is slightly different. Gibson refers to an 'ambient optic array', connoting the sense of being immersed within a dynamically structured patterning of light (See figure 7.1). 'Array' is accordingly intended as an attribute or feature of light, rather than of impressional awareness. See Gibson, *The Ecological Approach to Visual Perception*, 58–84.

44 Dockwray and Moore, 'Configuring the Sound-Box 1965–1972'; see also Danielsen, *Presence and Pleasure*, 51–52.

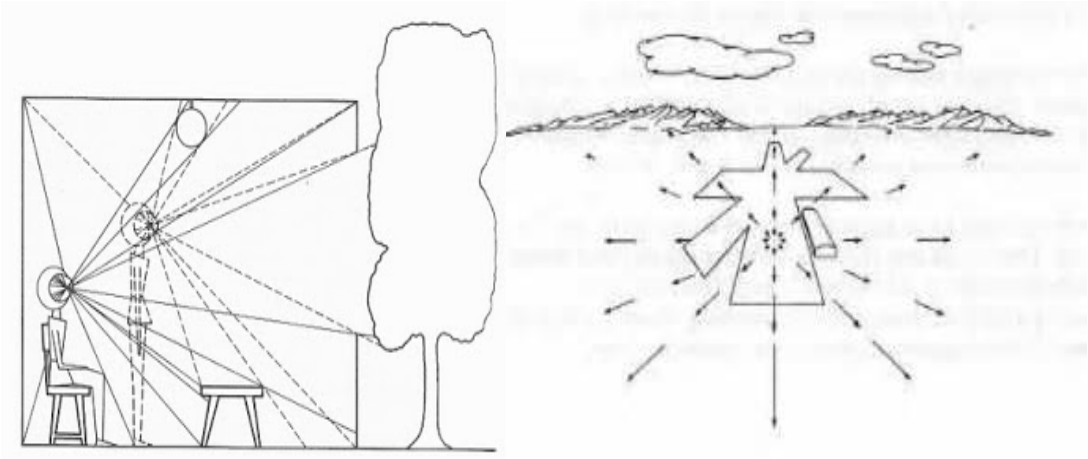


Figure 7.1: Gibson's ambient optic array.
The Ecological Approach to Visual Perception, 65, 118.

invariances within the changing flux of the array, the process of synthesis across the retentional continuum reveals an object of experience—e.g., the melody—in all its qualitative and morphological particularity, foregrounded within and against a horizonally and dynamically structured background—i.e., the totality of musical sound.[45] Further, the notion of an impressional array may encompass the full spectrum of sensory modalities, including proprioceptive, kinaesthetic and kinetic sensation.

7.1.3: Kinetic melodies and the dynamic field of spatiality

As visual and audial impressions depart as running-off phenomena,[46] so do (sensory) impressions of movement. As Gallagher argues, both kinetic melodies and the body schema 'can be modelled by Husserl's analysis of time-consciousness'.[47] Sheets-Johnstone makes the same claim in respect of kinetic melodies:

45 For detailed examinations of the constitution of musical sound, see Schütz, 'Fragments on the Phenomenology of Music', 47–58; Skarda, 'Alfred Schutz's Phenomenology of Music', 68–76. See also Clifton, 'Music as Constituted Object', 82–83.

46 See pages 104-106.

47 Gallagher, 'Dynamic Models of Body Schematic Processes', 241.

> A coordinated series of movements whose dynamics are engrained in kinesthetic memory is run off and recognized kinesthetically. As it runs off, it is unified by retentions and protentions... until the series and its familiar and unique dynamics come to an end.[48]

The embodied experience of movement is a specific instance, or expression, of the intrinsic temporality of the body. Bodily sensations share the transience of sound, and so might be similarly considered as predominantly temporal phenomena. As with sound, through the passage of time felt patterns of movement are experienced as having a distinct qualitative and morphological identity—a kinetic melody—where the perceptual awareness of the extended pattern of movement is made possible through the time-constituting processes of retention and protention. However, this position needs further elaboration, particularly in view of a claim made by Marek Pokropski that Husserl's analysis of the temporality of the lived body is, in certain respects, underdeveloped.

Husserl initially conceives of bodily sensation (which he refers to as 'hyle' or 'hyletic matter') as an undifferentiated, 'formless stuff'.[49] He later comes to identify a correlation between kinaesthesia and exteroceptive perception, and argues that the experience of movement performs an essential constitutive function in the perception of external objects.[50] That is, kinaesthetic sensations create 'an if–then system, in which a perceived object's adumbration (*Abschattung*) refers to the horizon of possible adumbrations perceivable by virtue of the subject's motoric capacities'.[51] Husserl also identifies 'common bodily feelings', such as tiredness or hunger, that are not specific to any particular region of the body, but rather 'pervade the whole

48 Sheets-Johnstone, 'Kinesthetic Memory'; cited by Gallagher, 'Dynamic Models of Body Schematic Processes', 241.

49 Pokropski, 'Affectivity And Time', 163; See Husserl, *Ideas*, 174–178.

50 Pokropski, 'Affectivity And Time', 164; as Zahavi remarks, 'the crucial point made by Husserl... is that our very perception presupposes movement'. *Husserl's Phenomenology*, 100.

51 Pokropski, 'Affectivity And Time', 164; see also Zahavi, *Husserl's Phenomenology*, 98–100; Zahavi, 'Husserl's Phenomenology of the Body'; Schütz, 'Fragments on the Phenomenology of Music', 33.

body… [as] a total feeling of one's bodily disposition'.[52] Taking up Husserl's observation, Pokropski argues that these internal, visceral feelings are a self-affection that have a 'specific mode of manifestation', and exhibit a distinct spatio-temporal character. 'Common bodily feelings' are experienced as 'localized' sensations felt in specific regions of the body; or again, they have a 'quasi-extension' that is evident, for instance, as the feeling of the totality of movement, or a pervasive and growing hunger.[53]

Stern's concept of vitality affect describe a particular dynamic to these common bodily feelings, as they unfold in the course of time. For example, we can experience pain 'as exploding, pulsing, and fading away'.[54] Sensations of movement and touch are intrinsically characterised by a qualitative style; 'the experience of the experience's dynamic form':[55]

> [W]e can characterize [the concept of vitality affects] in the most general sense as the temporal form of the kinaesthetic experience. One's own, as well as others', movements, gestures, and respiration, etc., always bear a certain temporal "how" (slow, fast, rapid, etc.). In other words, movements have their melodic, or more accurately, rhythmic order.[56]

Sheets-Johnstone's description of a kinetic melody as having 'an ongoing qualitative affective-kinetic dynamic' is also a case in point;[57] in particular, the idea applies to the felt patterning of tension and release in instrumental coordination, and the bodily articulation of horizontal and vertical moments. Pokropski's view is that the various affective dimensions of self-movement, the specific pattern of sensation of a

52 Pokropski, 'Affectivity And Time', 165.

53 Pokropski notes that for Husserl this spatialisation of feeling is distinct from the spatiality of the material world: '[t]he sensation of touch and pain or the feeling of movement are "localized" in my body, however not in the same manner as the object of perception is localized and extends in front of me'. Ibid., 166.

54 Ibid., 169.

55 Ibid.

56 Ibid.

57 See page 251.

particular dynamic of movement, the dynamic spatiality of visceral feeling, and the more pervasive qualitative dimension that manifests as vitality affect, are co-constituted through the intrinsic temporality of the body; that is, through the retentional and protentional modifications, and synthesis, of the impressional array of bodily sensation. Moreover, they are constituted as ‘internal rhythm[s]’ that may interfere and disrupt one another.[58] Yet integrated together these dimensions compose a ‘unique unity, a general tonality of the present experience’,[59] and amount to the constitution of a 'polyrhythmic body’.[60] Thus, a more developed sense of the constitution of a kinetic melody is that the internal (or ‘immanent’) sense of a

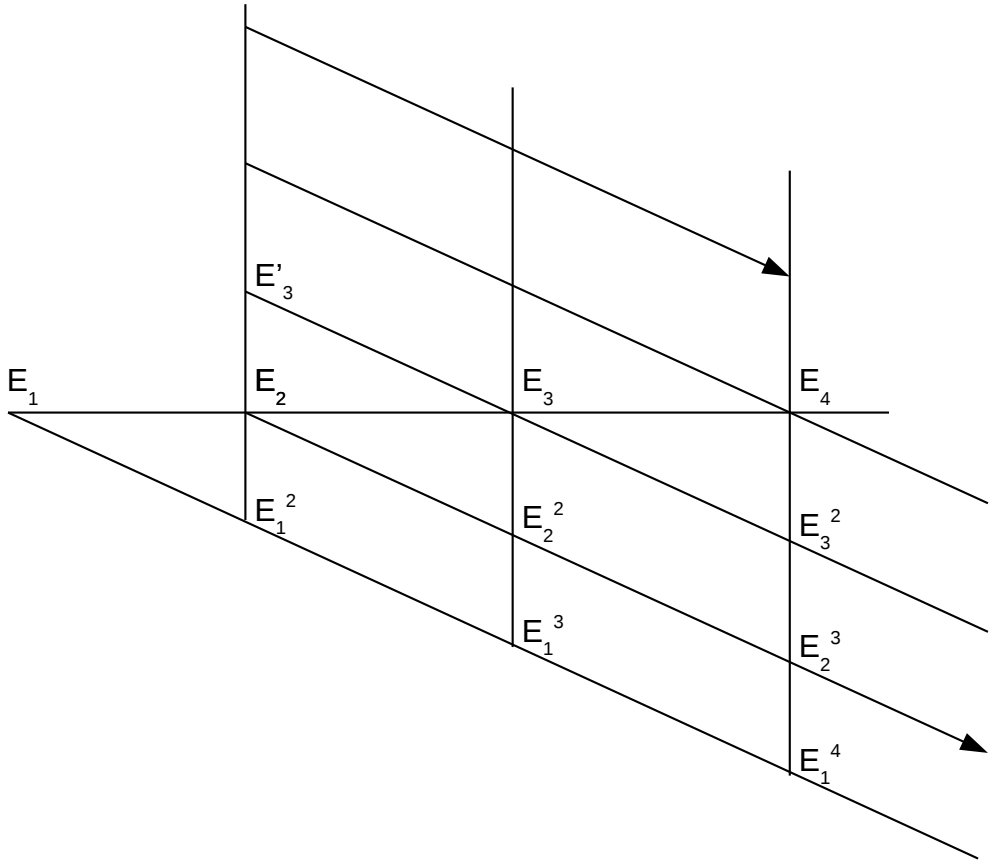


Figure 7.2: Husserl's modified diagram.

Primal presentation is represented by the line E1-E4, retentions by diagonal lines beneath the horizontal line, and protentions by diagonals above. Die Bernauer Manuskripte, 22.

58 Pokropski, ‘Affectivity And Time’, 169.

59 Ibid.

60 Ibid., 170.

specific pattern of movement arises amidst the more general patterning of visceral sensations, or common bodily feelings.

The idea that the experience of bodily movement is the expression of an intrinsic temporality is consistent with a reformulation of the status of primal impression that Husserl considers in the *Bernau Manuscripts*. The move by Husserl is considered part of a larger repositioning from a 'static phenomenology' towards a more dynamic 'genetic phenomenology', which itself prefigures an enactive phenomenological orientation. The change is motivated by the recognition that the concept of primal impression implies the reification of an abstract moment.[61] As Gallagher and Zahavi explain, primal impression is reconceptualised as 'primal presentation', so that 'rather than being the origin and point of departure is considered the result of an interplay between retention and protention'.[62] Put another way, primal presentation describes a 'line of intersection between the retentional and protentional tendencies',[63] or again a 'maximal point' within the temporal stream (represented in figure 7.2 by the horizontal line).[64]

From this perspective, instead of proposing that time-constitution emanates from a self-sufficient and isolated primal impression, 'primal presentation is conceived as the fulfilment of an empty protention; the now is constituted by way of a protentional fulfilment'.[65] Consequently, not only is protentional content motivated by that of retention, but the content of retention is motivated by protention: what is retained is not the content of a former impressional now-point, but rather that of a

61 Rodemeyer, *Intersubjective Temporality*, 142.

62 Gallagher and Zahavi, 'Primal Impression and Enactive Perception', 8.

63 Ibid., 9. In the Bernau Manuscripts Husserl describes primal impression as a 'primal presentation'.

64 Rodemeyer, *Intersubjective Temporality*, 138.

65 Gallagher and Zahavi, 'Primal Impression and Enactive Perception', 9. See also Zahavi, 'Time and Consciousness in the Bernau Manuscripts', 114.

fulfilled (or non-fulfilled) protention.[66] The relationship is asymmetric yet interdependent. The process is illustrated by Husserl's modified diagram, where rather than emanating from the 'now' as a source-point,[67] retentions are conceived as the continuation of a protentional chain.[68] Husserl takes the further radical step of suggesting that the 'complicated interlacing of retentions and protentions is constitutive of presence',[69] which is to say that 'the horizontal line of actualisation arises merely out of the activity of protention and retention'.[70] This position opens up the possibility of considering internal time-consciousness as an enactive structure.

Within the terms of a static phenomenology, the meaning of the content of primal impression is initially neutral; as it were, it comes to be attributed through the constitutive process. The meaning of the content of primal presentation is already delineated by virtue of its prior protended sense. Where the concept of primal impression corresponds with an objectivating, propositional attitude that looks to determine truth and validity, the application of primal presentation is more consistent

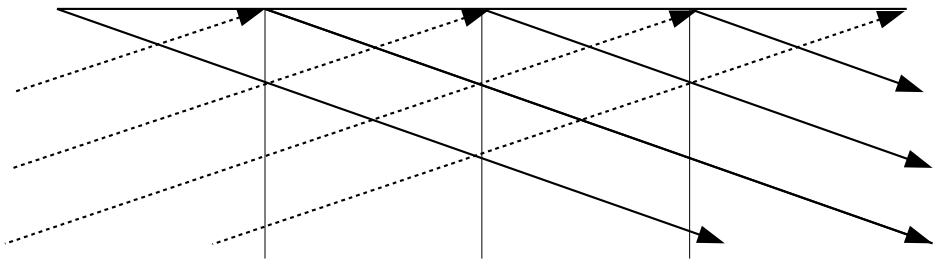


Figure 7.3: Depiction of Rodemeyer's interpretation of Husserl's modified figure as a 'folded diagram'.

Protentions (dotted arrows) rise up towards primal presentation—the 'zone of actualisation' represented by the horizontal line—as retentions (solid arrows) sink down.

66 Rodemeyer, *Intersubjective Temporality*, 140–141.

67 See page 103.

68 Rodemeyer suggests that the process is easier to imagine if we suppose that the diagram is folded along the horizontal line 'like the roof of a house', and conceive of protentions rising or 'climbing' to the horizontal line as retentions 'sink away' *Intersubjective Temporality*, 149. See figure 7.3.

69 Gallagher and Zahavi, 'Primal Impression and Enactive Perception', 9.

70 Rodemeyer, *Intersubjective Temporality*, 147.

in a pragmatic context, where events (and their meaning) are continually anticipated as they unfold. For Gallagher and Zahavi, it follows that the genetic analysis of time-constitution is more applicable to Gallagher's description of the intrinsic temporality of the body. Although we might imagine an instantaneous snapshot of the body in a specific posture, it remains the case that 'the body is not posturing from moment to moment, but is constantly on the way, in the flow of the movement such that the abstract postural moment only has meaning as part of that process'.[71] It follows that 'if that postural moment is anything, it is the product of an anticipated trajectory, of where the action is heading', indicating that bodily movement is a process in which 'the primal impression is already collapsing into the retentional stream even as it is directed forward in protention'.[72] To paraphrase Merleau-Ponty, in each successive instant, both preceding and *anticipated* instants of a movement remain in sight, so that a present bodily posture envelops with the succession of previous and future positions.[73] In relation to bodily movement, to say that we 'lay down a path in walking' is to mean that our actions are guided by, and the fulfilment of, our projected anticipations of movement, and that these in turn are continually and tacitly informed by the retained (kinaesthetic) sense of just-past movements. In short, through the interlacing of protention and retention, motivated bodily movement is enacted.

71 Gallagher and Zahavi, 'Primal Impression and Enactive Perception', 11.

72 Ibid.. Gallagher and Zahavi develop Husserl's position further, seeking to retain a functioning primal impression whose content essentially originates from beyond consciousness. To this end, they propose a 'fractal model' of time-consciousness in which primal impression is itself retentionally and protentionally structured.

73 See page 255.

7.1.4: The instrumental enaction of rhythm

To recall, time is of significance to music performance in two respects: as an event that takes place in time; and as one that calls for a specific awareness of (musical) time.[74] The instrumental performance of rhythm is grounded in time-constitution in both of these respects. Concerning the former, instrumental performance is a playing out of a kinetic melody, where the internal bodily experience is inflected with an affective vitality. Some elements of instrumental coordination involve light, rapid movements, others afford emphasis and weight. Coordinations are marked by a patterning of tension and release, and individual articulations are fused together, as Hassell remarks, in an organic movement.[75] The ability to perform is also impacted, in Pokropski's terms, by the general tonality of bodily self-affectivity. Being in a relaxed state is essential to the emergence of groove, as bodily tension inhibits the flow of rhythmic movement, while hunger, tiredness and anxiety are all commented upon as having debilitating effects.[76]

These bodily articulations draw upon the awareness of duration in the passage of time, which is to say of metric pulse. In the performance of rhythm, bodily movements are metrically ordered, in precise correlation with the ordering of musical sound.[77] The articulation of rhythm takes place with an ongoing sense of the duration of those movements, and also depends upon the ability to project duration in precisely the sense described by Hasty.[78] As we have seen, the perception of duration, and by implication of metre and rhythm, is founded in the time-constituting processes of retention and protention.[79] It is a small step further to suggest that the

74 See opening remarks, section 1.1.
75 See page 170.
76 See page 189.
77 To recall Hamilton's definition of rhythm as 'order-in-movement', see page 27.
78 See section 3.1.1.
79 See section 3.3.1.

ability to time and metrically order an instrumental movement, which is somatically experienced as a morphological kinetic melody, is grounded on the same basis, through the mechanisms of projective and projected durations. Hasty's stipulation that duration is realised in the progression from one musical event to another can be extended with the recognition that it is also realised in the self-affective articulation of bodily movement: from the perspective of the performer, the beginning of a musical event correlates with a moment in the cycle of movement where the instrument is sounded (or a continuous sound given fresh impetus). That is to say, the cyclic patterning of movement involves a continual retention of the growing duration of a specific cycle as it unfolds in time, and at the same time a projected sense of its full duration, itself based on the retained sense of a prior cycle of movement. Thus, the intrinsic temporality of the body is the constitutive basis of both the ordered articulation of bodily movements, and the capacity to time those movements as rhythmic movements, organised through an ongoing projection of metre.

This application of the concept of an embodied temporality to instrumental performance also extends to establishing and maintaining tempo. The findings from the analysis of the case study interviews indicate the significance of the body in establishing and maintaining a sense of tempo, and also of maintaining an orientation towards metric pulse. Participants describe how they secure the tempo through stepping and swaying, and also through the practice of singing the melodic line or voicing the pulse and subdivision.[80] I also noted that a sense of an appropriate tempo co-originates with the initial articulation of a melody, which may be imagined or sung out loud:[81] as it were, the sense of tempo comes 'out of nowhere', which is to

80 See pages 208 and 214.

81 See page 209.

say that essentially it emerges from passivity.[82] Yet, singing the melodic line out loud, which is itself another mode of bodily articulation, is also identified as a means of precisely gauging the tempo.

The implication from the primary case study, that the self-affectivity of bodily movement plays a fundamental role in establishing and maintaining tempo, is paralleled in the phenomenological account of constitution. As we have seen in his analysis of time-consciousness, Husserl's initial concern was with the constituted awareness of the concrete object or event. This position was developed with the suggestion that 'every perception contains a double performance',[83] where 'our experience of perceptual objects are accompanied by a co-functioning but unthematic experience of the position and movement of the body'.[84] This 'double performance' implies a certain constitutive priority of bodily self-affection over the hetero-affection of the external object.[85] Put another way, visceral feelings are 'constitutive for the lived body', as they create the pervasive and 'irreducible bodily background to experience'.[86] This would suggest that the reason bodily movement and

82 This passive basis is itself formulated through the assimilation, in varying contexts, of past listenings and performances of the song. Schütz makes the point about musical understanding more generally: '[e]ven before starting to play or to read the first chord our musician is referred to a more or less clearly organised… set of his previous experiences, which constitute in their totality a kind of preknowledge of the piece of music at hand', 'Making Music Together', 85. Accepting Høffding's identification of musical structure as a source of musical passivity, it follows that judgements of tempo are founded through and within the passive retention of performative, musical experience.

83 Zahavi, *Husserl's Phenomenology*, 100.

84 Ibid., 99; See also Zahavi, 'Husserl's Phenomenology of the Body', 65–68. Merleau-Ponty also takes up this idea and argues for an internal relationship between perception and action which is experienced as the 'inter-sensory unity of a world'. Merleau-Ponty, *Phenomenology of Perception*, 2012, 139.

85 Pokropski, 'Affectivity And Time', 167; see also Husserl, *Ideas II*, 160. Pokropski notes that '[i]t is disputable whether we can describe the bodily self-affection as temporal, or whether we should call it, as Husserl sometimes does, a "prephenomenal temporality"'.

86 Pokropski, 'Affectivity And Time', 166. Similarly, Depraz claims that '[t]he materiality of temporality… has to do, for example, with the passive movement of our eyes or our heartbeats'. Depraz, 'Hylectic and Kinetic Facticity of the Absolute Flow and World Creation', 31.

articulations (appear to) ground a sense of tempo is that the feeling of movement is the primordial, non-thematic and passive ground for the hetero-perception of musical sound and its temporal modalities. The awareness of temporal duration, and thus the capacity to project metre, is founded upon a sense of temporal passage that encompasses all sensory and perceptual modalities, but all the same is fundamentally an embodied temporality. Conversely, the primordiality of bodily self-affection is underscored by the fact that bodily movement lends itself to a more secure and precise sense of tempo.

The constitutive priority of self-affection also accords with the normative position that skilled tasks are best performed by maintaining an external *loci* of attention,[87] towards musical sound, other musicians and audience. The double performance of perception indicates that, in the performance of any kind of task, an external focus is maintained against a tacit, non-thematic sense of bodily movement. This is consistent with Merleau-Ponty's position that bodily skills are themselves pre-reflectively performed and driven by perceptual saliencies, so that 'an action is a piece of behaviour that is initiated and controlled by the agent's apprehension of her environment'.[88] For Romdenh-Romluc, the perception of salience is a recognition of an environment's affordances, where an agent might perceive 'cups of tea as for-drinking, boats as for-sailing, and a bus shelter as offering an opportunity to shelter from the rain'.[89] Saliencies vary in 'attractive power', so that '[c]ertain affordances.. will solicit the agent more strongly'; they might merely suggest, or otherwise perhaps demand certain actions.[90] This position is in general agreement with the finding in the

87 See page 75.

88 Romdenh-Romluc, 'Agency and Embodied Cognition', 89.

89 Ibid., 90. See also page 70.

90 Ibid.. Perceptual saliencies arise through the affectivity of a constituted object (or as Høffding describes, a 'proto-object'), which is to say it appears as a prominence within the flux of constituted appearances that exerts an affective pull, thus calling the attention of the ego.

primary case study, of the recurring emphasis upon the importance of listening, an emphasis that is consistent with Hassell's prescription that a musician must ‘listen and react’.[91] The case study also confirms the view that ideally, in performance, the body (and instrument) are only tacitly given. The self-directing of bodily movement, along with its self-affectivity, reside in the background of awareness, as the musician attends and responds to the competing saliencies of musical sound and other situational factors.

I have made the case that the performance of rhythm, experienced as a metrically ordered, kinetic melody of instrumental movements, is enacted on the basis of the intrinsic temporality of the body and metric projection. This position can be applied to Roholt’s characterisation of groove as the affective dimension of motor-intentionality, and his statement that the affectivity of groove consists in ‘tensions against a norm’.[92] These tensions arise as a non-fulfilment of temporal expectation, meaning of a tacitly anticipated and metrically precise musical event. Yet, this non-fulfilment is a deliberate accomplishment, the willed enactment of a musical affect. From the musician’s perspective, it is anticipated as the outcome of a pattern of movements. In effect, the achievement of groove involves the fulfilment of an expectation of non-fulfilment. The status of Roholt's norm is a particular concern here. Roholt appears to assume that tensions are generated (as a non-fulfilment) against a metric norm. Put another way, the feel of groove consists in being pushed or pulled against an unsounded, internal pulse.[93] Although the phenomena of groove arises through the intersection of sounded events, it is principally the timing discrepancies between the sounds that generate tension. However, as I discuss in

91 Hassell, *Thoughts-Concepts-Routines/Exercises*.

92 See page 66.

93 Wesolowski’s horizontal discrepancies, see page 31.

section 3.1.2, the matter is not so straightforward if a commitment is made to a projective model of metre. Projection implies a rejection of the metronomic model and the idea of an independently functioning internal pulse that references objective time-points. As I have stated, metric projection is consistent with a local time shift model,[94] and this consideration can be applied to the affectivity of motor-intentional movement. Seen from the perspective of a local time shift model, affective tension arises through the contraction and expansion of pulse, specifically through the referencing of projected duration against projective potential. Where projective potential sets up the protended anticipation of a musical event at a specific moment, the early or late arrival of that event in relation to the projected duration results in the desired tension in the feel of bodily movement. Moreover, through the projection of complex metric events, a patterning of tension and resolution is constituted within the metric envelope, and as such can be sustained through the reiteration of a complex of projections and the accompanying felt pattern of tensions.

7.2: A sense of agency: attention and time-consciousness

> [T]his function of the wandering glance, which alternately enlarges and restricts its mental span, signifies *a special dimension of correlative modifications noetic and noematic*, of which the systematic study on essential lines is one of the fundamental tasks of general phenomenology.[95]

At various stages in the presentation of this thesis I have touched upon the issues of agency and attention. A criticism of the perspective of entrainment has been based upon the observation that it does not allows for the role of subjective agency, and draws upon an impoverished understanding of attention and awareness.[96] Roholt characterises the experience of groove as arising through an active exploration of

94 See page 91.

95 Husserl, *Ideas*, 194, (emphasis in original).

96 See section 2.1

musical sound, in which the structuring of the perceptual act makes a critical difference; in effect, agency and attention are intrinsic to the experience of groove.[97] Høffding references the Husserlian distinction between the active and passive dimensions of consciousness, specifically Husserl's position that 'attention is the hallmark' of egoic activity.[98] In the case studies, before each interview I familiarised the participants with Husserl's horizonal structure of consciousness: a recurring theme that arose is that an essential ability for a musician is to maintain an appropriate focus when in a complex and dynamic performance situation, in which a myriad of potential distractions arise.[99] As with Hume's naïve belief in reality, which is the starting point for Husserl's phenomenology, the ubiquitous capacity to focus attention hides in plain sight, and as the above citation indicates, is itself an important theme for Husserl.

In the following subsections, I aim to examine the relationship between agency and attention more closely, by delineating the relationships between active (and passive) consciousness, time-consciousness and the horizonal structure of consciousness. Section 7.2.1 outlines the relationship between egoic activity and the horizonal structure, and section 7.2.2 that between egoic activity and time-consciousness. In section 7.2.3, I discuss time-consciousness in relation to the horizonal structure. My intention is to clarify how the focussing of attention within an unfolding, dynamic situation functions in relation to the processes that constitute temporal awareness. In particular, I present the argument that to focus attention is, in effect, to orientate the futural perspective; or again, it is to modify the affective

97 See section 2.3.2 and 2.3.3.

98 See page 76.

99 See section 5.4.

power of protentional content. In section 7.2.4, I apply this theoretical position to the active coordination and timing of instrumental playing.

7.2.1: Agency and the movement of attention

In *Analyses Concerning Active and Passive Synthesis* (2001), Husserl states that 'all lived-experiences that exercise a sense-giving accomplishment… are not only modes of consciousness in general, but egoic acts'.[100] Husserl goes on to identify the ego as 'the peculiar centre of the lived-experiencing, as the one being absorbed in it… it is the identical pole, the centre of actions and passions'.[101] This should not be taken to mean that the ego is 'a box containing egoless lived-experiences', but rather 'is everywhere living in these acts'.[102] As discussed in the review of Høffding, Husserl characterises the wakeful life of the ego as taking place against a passively constituted 'background of non-wakefulness',[103] or again 'a constant, broad horizon of background lived-experiences, to which the ego is not present'.[104] For Husserl, egoic acts are a specific type of lived-experience that take place against this background: if a musician directs their attention towards the singer in the ensemble, other aspects of the situation are peripherally and non-thematically 'given to consciousness'.[105] The active ego may not be attentive to background lived-experiences, yet they are nonetheless 'there for us'.[106] It follows that the movement of consciousness involves a continual process of transformation, where a background

100 Husserl, *Analyses*, 16.

101 Ibid., 17.

102 Ibid.

103 Ibid., 18.

104 Ibid., 19. See page 72.

105 Ibid., 20. It is important to distinguish between the entity that resides in the background (such as the audience) and the background awareness of that entity. Husserl, *Einleitung in Die Logik Und Erkenntnistheorie*, 252; cited by Zahavi, *Subjectivity and Selfhood*, 63; see also Zahavi, 'Time and Consciousness in the Bernau Manuscripts', 105.

106 Husserl, *Analyses*, 20.

lived-experience becomes transformed as the ego takes it up in the form of an egoic act.[107] As Husserl remarks, 'life in general runs its course in a fundamental stratification' between 'passivity and receptivity', on the one hand, and 'the spontaneous activity of the ego', on the other.[108] Accordingly, as modes of intentional awareness, perception and cognition are both passively and actively constituted; that is, they largely take shape without conscious direction, yet typically exhibit a kernel of egoic influence. Further, egoic activity 'presupposes a foundation of passivity as well as an objectlike formation that is already pre-constituted in it';[109] we are drawn towards objects, events or meanings that are already latently present, while our perceptions, actions and thoughts take place on the basis of an already acquired understanding.

Much of this background understanding of passive consciousness is the achievement of the ego itself, in that 'every accomplishment of activity in turn sinks in a regulated manner into passivity, and is sedimented in the accomplishments of original passivity'.[110] This remark gives an important indication of the relationship between time-consciousness and passivity. Experiences and intentional acts and experiences that arise through the synthesis of retentional and protentional modifications are assimilated into the passive background as they recede into the past.[111] They feed into a nexus of associations, in which they may harmoniously reside, or function more dissonantly, as a sense of conflict or contradiction with previous experience.[112] Again, Husserl's primary concern is with mental accomplishments; for example, the intellectual grasping of the harmonic structure of

107 Ibid., 20–21.
108 Ibid., 105.
109 Ibid., 276.
110 Ibid., 275–276.
111 Ibid., 368–369, 422–423; Rodemeyer, *Intersubjective Temporality*, 87–89.
112 See Husserl, *Analyses*, 92–99.

an augmented chord, or the perceptual ability to differentiate between a major and minor key. Yet the assimilation of egoic activity into passivity also applies to the development of bodily skills, an example being the articulation of an instrumental technique, or again the establishment of interdependence between limbs in instrumental coordination. The development of interdependent coordination similarly involves an active association, a specific and deliberate paying attention to (independent) bodily movements in order to establish a coherent, felt sense of the coordination.[113] The association between bodily movements is assimilated through constant repetition until it is consolidated into a synergy; a cohesive and unified sense of interdependent control between bodily parts. That is, the retentional chain of kinaesthesia are assimilated into the passive dimension of consciousness, so that the pattern of associations are consolidated (or 'sedimented') as a sense of automatic (which is to say, pre-reflective and non-thematic) and integrated control of bodily movement—in short, as a synthesis. As Seth Vannatta comments, 'passive synthesis accounts for the scientifically uncritical common use of "muscle memory." When bodily habits have been transformed into a prereflectively accessible realm, passive synthesis is at work'.[114] Merleau-Ponty describes this development of bodily skills and habits as the acquisition of 'a certain style of vision, a new use of one's own body; it is to enrich and to reorganise the body schema'.[115] Thus, the intrinsic temporality of the body, which is to say of motor-intentionality, and by implication the body schema and kinetic melodies, extends to the assimilation of retained bodily experience into passivity; a background of acquired bodily skills and habits that are simply 'there' to be drawn upon.

113 See page 174.

114 Vannatta, 'A Phenomenology of Sport', 68.

115 Merleau-Ponty, *Phenomenology of Perception*, 2012, 155; see also Boast, 'The Musical Body', 26–28.

In the transformation of a lived-experience from background awareness to egoic act, attention plays a crucial role. Husserl explains:

> Turning our attention toward is, as it were, the bridge to activity, or the bridge is the beginning or *mis en scène* of activity, and it is the constant way in which consciousness is carried out for activity to progress: All genuine activity is carried out in the scope of attentiveness.[116]

This movement of attention, or 'directedness', is also described by Husserl metaphorically as a 'glancing towards', or again a '"mental glance" or "glancing ray" of the pure Ego'.[117] He notes that the ego may shift between a number of attentional modes, which is exemplified by a musician at one moment listening to the singer and at the next remembering unanswered emails, and also how an object of attention may at different moments be tacitly 'just noted' or more explicitly 'primarily noted'.[118] Although Husserl regards egoic activity as '*eo ipso* a realm of free volitional activity',[119] the turning of attention is a (deliberate) response to an already partially constituted proto-object, or 'objectlike formation'.[120] That is, the proto-object exerts an affective pull upon the ego, as having some potential salience for the immediate purposes of egoic activity, so that attention turns to what is already given for consciousness. Husserl terms this turning of attention 'receptivity, an actively giving self-intuition',[121] and the essential point is precisely that in becoming receptive towards a particular object, phenomenon, or aspect of a situation we become actively engaged with it. It follows that, in an essential respect, subjective agency consists in the continual shifting and movement of attention.

116 Husserl, *Analyses*, 276.
117 Husserl, *Ideas*, 69, 192.
118 Ibid., 193.
119 Husserl, *Analyses*, 283.
120 See page 72.
121 Husserl, *Analyses*, 312.

Following Merleau-Ponty, Thompson argues that the ‘dynamic interplay between passivity and activity, affectivity and receptivity, expresses an ongoing “operative intentionality”’.[122] That is, operative intentionality describes the intersecting processes that realise the movement of attention itself, and is contrasted with act-intentionality, the intentional modes of perception, remembrance, knowing, believing, and so forth, in which some feature of the world becomes fully present to consciousness. The idea is that the more primordial processes that are expressed as operative intentionality constitutively precede act-intentionality.[123] Gallagher argues that the concept of operative intentionality is consistent with enactive phenomenology, where actions and emotional expressions are recognised as meaningful and expressive forms of intentionality.[124] In effect, operative intentionality supports our ongoing pragmatic engagements with the world, which is to say that in addition to act-intentionality, operative intentionality is intrinsic to motor-intentionality. In our bodily engagements, to focus attention is to bring aspects of the situation to prominence and/or clarity, in a way that serves the task in hand. A case in point is the remark by one research participant, who describes how he focuses 'on specifically the solo... so that I can try and respond to that one soloist, listening to his melodies, his rhythms’;[125] or again, where another participant describes a self-monitoring process where he is ‘constantly... focussing… on the sounds that I am making… constantly, you know, 'is that the right sound? is that the right dynamic?’.[126] Active listening is itself a case of mediating between musical sounds and their sources and aiming to make sense of them. In performance musicians need to constantly take note of salient features, to make sense of the emerging phenomena

122 Thompson, *Mind in Life*, 263–264.

123 Merleau-Ponty, *Phenomenology of Perception*, 2012, lxxxii, 440–442.

124 Gallagher, *Phenomenology*, 76.

125 participant_8_[1692:2274], see section 5.2.1.

126 participant_6_[2498:2870]

so as to respond to (and/or control) them in a meaningful, appropriate and creative manner. Where the movement of attention in the act-intentionality of intellectual judgements serves to clarify structural and dynamic features of an object under observation, the performance of bodily skills require the continual clarification of an unfolding situation.

The movement of attention is intrinsically related to the horizonal structuring of consciousness. This is merely to say that a musician may freely direct their attention toward musical sound, the actions of other musicians, towards the specific matters of tempo, timing, the feel of the subdivisions, or the organisation of rhythmic patterning at the metric level, as these various elements present themselves within the phenomenal field. To focus attention in one direction or another *is* to modulate the horizonal structure, meaning it is to structure the intentional act. To take Roholt's examples, by foregrounding the harmonic of an E-string, or the timing nuances of an ensemble,[127] the perceptual act is horizonally structured in a specific manner. This implies that as the expression of the 'interplay between activity and passivity, receptivity and affectivity',[128] operative intentionality functions as the noetic determination of the horizonal structure; i.e., a horizonally-structured field of awareness is passively constituted, yet through the movement of attention the particularity of this structure is specified and attenuated as the expression of egoic activity.

7.2.2: The protentional continuum and its bearing upon the sense of agency

In the previous subsection, we have seen that egoic activity takes place against a background of passivity, which is itself a nexus of assimilated experiences that are

127 See page 64.

128 See above.

originally constituted through the structure of internal time-consciousness. In part, these reside as bodily habits and skills that are maintained and expressed through the body schema. Gallagher argues that egoic activity relates to time-consciousness in another specific respect; namely, that the sense of agency that accompanies egoic activity is intrinsically related to the functionality of protention. His position is based on empirical findings in the study of the pathology of schizophrenia. Sufferers of the condition report a loss of the sense of agency: this loss is variously experienced as thought insertion, involuntary movements and delusions of control, where actions are misattributed to the agency of others. They also experience problems in timing and coordinating bodily actions, and in anticipating future events.[129] The disorder appears to involve ‘a disruption in the sense of agency, but not in the sense of ownership’, which is to say the experience of thought and movement involves a self-affection or ipseity—that the experience or action is happening *to me*—but lacks the sense of individual authorship.

Ordinarily, our experiences and actions are conditioned by a sense of both ownership and authorship. For example, when uttering a sentence, '[t]he words do not become part of a free-floating anonymity... they remain, for me, part of the sentence that *I* am in the process of uttering'.[130] Gallagher argues that the longitudinal intentionality of the retentional continuum provides for the sense of ownership, 'that *I* am the one who has just said these words’.[131] This is because longitudinal intentionality constitutes the (transient) experiencing of intentional acts (the perceiving), where the (enduring) intentional content and object (the perceived) are constituted through transverse intentionality.[132] Yet, the experience also involves an

129 Gallagher, *How the Body Shapes the Mind*, 174–175, footnote 2.

130 Ibid., 192, (emphasis in original).

131 Ibid.

132 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 137–145. See also, pages 104-106.

‘anticipatory sense of where the sentence is going’, where this sense is constituted through protention. Gallagher notes that where Husserl offers an exhaustive analysis of retention, he has relatively little to say on the subject of protention.[133] He accordingly proposes a development of the concept of protention that involves a double intentionality,[134] including ‘a longitudinal aspect’. Such an aspect would involve ‘a projective sense, not only of what is about to happen, but of what *I* am about to do or experience’.[135] On this basis, the disorders of schizophrenia could be consistently explained in terms of the breakdown of protentional functioning. While a functioning retentional continuum maintains a sense of ownership of an experience, a loss of protention would mean that ‘I will experience my own thinking, as thinking that is not generated by me’: a sense of agency would be absent.[136]

Gallagher's analysis offers a possible explanation of the experience of thought insertion, one which is also consistent with the finding that schizophrenic disorders are also accompanied by a loss of an anticipatory sense and difficulties with timing and coordinating bodily movement. In effect, his argument is that the agency of egoic acts is intrinsically linked to protention; in particular, through the longitudinal intentionality of a ‘protentional continuum’.[137] I take the view that Gallagher's argument is plausible. However, although protention might be necessary to the emergence of a sense of agency, this position needs to be reconciled with Husserl's view that egoic activity is marked by the movement of attention. In short, Gallagher's proposal invites further development.

133 Gallagher, *How the Body Shapes the Mind*, 192.

134 One that is effectively asymmetrical to the double intentionality of retention.

135 Gallagher, *How the Body Shapes the Mind*, 193, (emphasis in original).

136 Ibid., 195.

137 See also Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 126–128. Mensch states that Husserl formulates the concept of a protentional continuum in the *Bernau Manuscripts*.

7.2.3: The movement of attention and time-consciousness

In several respects an intimate and self-evident relationship exists between the horizonal structure of consciousness and the structure of internal time-consciousness. For example, the relationship is apparent in the findings of the primary case study, where I have noted that music performance demands the continual attenuation of focal attention as events unfold through the passage of time. Moreover, time-consciousness constitutes a horizonally-structured awareness: the focus of attention may be very precise and specific, or again it might be more diffuse and dilated, yet whatever the intentional act or content, the structural relationship comprising focus, fringe and horizon is always evident.[138] The unitary phenomenon of the living present is itself characterised by a *temporal* horizon, which permits the focus of attention to range over a relatively narrow or broad temporal period, as a 'looking back' to the immediate past and/or 'forward' to what is immediately upcoming. Music perception (and performance) is a case in point: in listening our anticipations may span over a single beat, or they may tend towards the completion of a single measure, or again range over a hyper-metric period that encompasses a musical phrase. It is precisely this phenomenon that Jones' theory of dynamic attending aims to explicate in terms of temporal referents.[139] It is also assumed by Hasty in his formulation of the projection of complex metric structure, where the implication is that the awareness of (and the capacity to project) metric duration is encompassed within an awareness of durations that are more extensive.[140] Thus, the focus might be not only specifically temporal, but again very precise or more dilated in its temporal range, and also

138 An intriguing issue also arises concerning whether we can consider primal impression, or more specifically what I have termed the impressional array, as itself being horizonally-structured.

139 See page 45.

140 See page 115.

simultaneously incorporate a hierarchy of temporal durations.[141] Additionally, the ability to focus on the temporal dimension of an experience extends beyond the immediate moment, in that through recollection and expectation we may thematise upon events that are specifically in the more distant past and/or future.

Mensch notes an equivocation in Husserl's *Analyses,* on whether the synthesis of retentional content is a pre-condition for the affectivity of a constituted object, or rather that 'the actual emergence of such unities itself is dependent upon affection and association?'[142] Husserl ultimately concludes that '[t]he primordial source of all affection lies and can only lie in the primordial impression and its own greater or lesser affectivity'.[143] The idea is that primal impressions bear an 'affective force' or 'power', which is diminished through the gradations of retentional modification as they temporally fade and become indistinct,[144] implying that both primal impressions and retentions bear this affective power. The content of protention is motivated through a 'transfer of affective power', in which a present event awakens the retained memory of an unfolding pattern of prior associations: the affective power of retained content is transferred to protention as an expectation of a similar outcome. For Mensch, it follows that anticipation is the turning of attention as it is 'pulled' by the passively transferred affective power.[145] Although Mensch appears to be considering how more distant past experiences can influence our anticipations, his position clearly applies to the immediacy of ongoing acts. In particular, the constant reiteration of cyclic patterns of movement (and sound) lends itself to an increasingly consolidated sense of the coordination. This is evident in the

141 For a full and extensive description of the range and possible modes of temporal focussing, see Ihde, *Listening and Voice*, chap. 7.

142 Husserl, *Analyses*, 201; Mensch, 'Husserl's Account of Our Consciousness of Time', 262.

143 Husserl, *Analyses*, 217; Mensch, 'Husserl's Account of Our Consciousness of Time', 263.

144 Mensch, 'Husserl's Account of Our Consciousness of Time', 264.

145 Ibid., 270–271.

individual acquisition of a particular skill, and also the sense of synergy that develops between musicians as they secure the feeling of groove. As a coordination is repeated, a growing sense of facility develops, which we might refer to as an ongoing sedimentation:[146] put another way, a particular anticipation becomes more dominant, as increasing degrees of affective power are transferred to a specific distribution (or array) of protentional content.

Høffding points to the heterogeneous character of the musician's experience of performance, and suggests that this can be attributed to differing sources of musical passivity coming to prominence. A possibility that arises here is that the degree of affective force of protentional content correlates with the character of the experience. For example, in his taxonomy of musical absorption Høffding distinguishes between two types of deep absorption. He describes one as a trance-like 'lack of self-awareness', or 'blackout', the other as a distanced, or spectatorial 'ex-stasis'.[147] Where the former is characterised by the almost complete loss of the sense of self and agency, the latter is marked by a hyper-awareness and sense of total and immediate control. The interviews with research participants also reveal how performance appears to demand an all-encompassing hyper-awareness.[148] Other forms of absorption identified by Høffding indicate a relative lack of anticipative awareness, an 'absent-mindedness', or again its disruption experienced as a 'playing under stress'.[149] These different types of experience suggest radically differentiated forms of attentional structuring, accompanied by varying degrees of control and agency, where an anticipative sense may be either heightened or diminished. These varying scenarios suggest that in certain cases anticipation is relatively passive, while

146 See page 275.

147 See Høffding, 'A Phenomenology of Expert Musicianship', 135–140.

148 See page 178.

149 Høffding, 'A Phenomenology of Expert Musicianship', 129–134.

in others it is marked by an active and heightened awareness. Høffding's case of ex-static absorption suggests a case of concurrent heightened awareness and passivity. I propose that the difference might be explicable in terms of protentional content bearing varying degrees of affective power.

As Ihde observes, attentional focussing can aim towards any aspect of the temporal horizon. We might turn our attention towards phenomena as they retentionally fade into the past, or we might focus on the next upcoming moment in anticipation of a specific occurrence.[150] Again, the horizon may narrow or dilate. All the same, attention is always directed towards these temporal modalities *from the standpoint of the ego centred in the living present*. From this standpoint, the directedness of intentionality is always passively informed by the fading content of retentional modification (the distribution of affective power across the retentional continuum) and the passively motivated transfer of affective power to the content of protention. Yet, if we assume that egoic activity is characterised by the movement of attention, and that the turn of attention is simply motivated by the affective power of protentional content that is passively transferred, there appears to be little of egoic activity to suggest the ego's own agency. In the course of performance, paying attention does not simply amount to being drawn to salient features of the situation, but involves a deliberate and active movement of conscious attention so as to maintain a sense of the situation in a manner 'that serves the music best'.[151]

In response to this issue, I suggest that the *operative intentionality intrinsic to egoic activity consists in shaping the distribution of affective power* across an array of passively generated protentions. To focus attention is to effect a particular set of expectations *vis à vis* an unfolding event: as Ihde remarks, 'protentions are

150 Ihde, *Listening and Voice*, 92–94.

151 participant_7_[33304:33687]

attentional structurings that may be futurally oriented'.[152] My argument is that structuring attention involves the active and continual attenuation of the distribution of affective power across the protentional continuum: as such, it is the expression of an autonomous and self-constituting subjectivity that, to recall Depraz's remark, is 'temporalizing *and* temporalized'.[153] To be clear, this is not a claim that the ego actively attenuates the affectivity of protentional content, as this would position the ego as the motivating force for such an attenuation. Rather, the claim is that the operative intentionality of egoic activity *consists in* structuring an anticipative sense: the turning of attention in a specific direction *is* the modulation of the affective force of protention. This modulation *is* a structuring of horizonal consciousness in a specific manner (and thus is intrinsic to the perceiving of a groove, or Dennett's E-string harmonic).

Given that 'attention is the hallmark' of egoic activity,[154] it follows that subjectively motivated actions involve a continual modulation of attention, whether that is towards the sound of one's own instrument, or again the singer, or again 'into a blank space... that is defined by all the other things that is around it'.[155] Moreover, this activity has to hold fast in the face of the affective pull of other co-constituted phenomena, the presence of the musical peer or the waitress, the feedback from the P.A. system, the drummer who has started to rush the tempo, or the argument with the landlord about being made to pay for a glass of water that lingers at the back of the mind. In maintaining an appropriate focus, potential distractions are kept or pushed to one side. This aspect of operative intentionality consists in an ongoing

152 Ihde, *Listening and Voice*, 91.

153 Depraz, 'Hylectic and Kinetic Facticity of the Absolute Flow and World Creation', 26, (emphasis in original). See also page 112.

154 See page 76.

155 participant_5_[59050:61352], see page 194.

attenuation of the protentional horizon, specifically of the affectivity of protentional content as it is (already) passively given. Moreover, the observation that being able to maintain an appropriate focus in the context of performance is itself an essential skill suggests, as with instrumental coordination, a passive basis for that ability. A musician learns how to focus and pay attention, perhaps by trial and error, or again through following pedagogic advice. When successful in their attempts, a particular manner of actively focussing attention is assimilated in the passive dimension, and through its reiteration eventually becomes a pre-reflective habit: to recall Husserl's claim, it becomes 'sedimented in the accomplishments of original passivity'.[156]

7.2.4: Kinetic melodies and subjective agency

Some of the above considerations apply to the constitution of a kinetic melody. In section 7.1, I describe how the morphology of an instrumental action is constituted as a dynamic field of spatiality, through the synthesis and merging of retained bodily sensation. This initial analysis provides some sense of the subjective ownership of a bodily experience and/or action. Although the future is yet to be realised, the fact of anticipation clearly indicates that our sense of the future is determinate to a greater or lesser degree. If I set out to play 'Bye bye blackbird', this typically involves a very precise and specific sense of the morphology of intended movement; of 'what I am going to play (and hear) and how I am going to play it'. At different times, a patterning of instrumental movements may be nuanced as variations in timing or stress, yet structurally it remains essentially the same patterning of movements. Often, the nuances themselves can be highly specified as intrinsic elements of an intended or anticipated kinetic melody. In short, a kinetic melody is constituted anticipatively, as a specific patterning of intended movements, and as with all

156 Husserl, *Analyses*, 275–276.

anticipation this is by virtue of protentional functioning. Following Gallagher, the sense of agency that accompanies instrumental action is mediated by the protentional continuum: the longitudinal aspect of protention provides for the sense that 'I am about to perform' a particular instrumental action, itself specified as a kinetic melody.

The analysis I have presented allows us to to develop the idea of a dual performance of perception, in which an intention to act is primarily mediated through a perceptual awareness that maintains an external *loci*, in particular through paying attention and responding to perceptual saliencies. As remarked, the articulation of bodily movement has a passive basis, as a sedimented pattern of associations, yet these movements are also motivated acts that serve specific purposes, such as the production of particular patterns of musical sound. The analysis implies that the active movement of attention across the perceptual field implicitly structures the protentional horizon, and this encompasses the anticipation of what will be heard and the trajectory of bodily movement. In the case of music performance, the structuring of the perceptual act informs the musical decisions made by a performer, which are expressed as and through instrumental actions. This applies whether a musician is primarily listening 'really hard', or again, not listening because they are looking at the singer, thinking about unanswered emails, imagining that someone in the audience is appraising their performance, or actively attending to their posture. In some manner or another, all of these modes of attention influence the making of their ongoing musical decisions.

These considerations extend to the timing of instrumental actions and the active maintenance of time. In particular, a finding of the case study is the importance of being able to independently maintain a sense of the pulse, rather than passively rely upon fellow musicians: tempo is both passively registered and actively

stated as a matter of ongoing judgement. It is tempting to respectively correlate retention and protention with (passively registered) projective and (actively) projected durations, yet as I argue in section 3.3, both retention and protention are implicated in each side of the dynamic of projection. A more consistent position with the analysis would be to say, once again, that the longitudinal aspect of protention provides for the subjective control of timing behaviours. Further, agency in part consists in the focussing of attention towards musical sound, which as a structuring of the protentional horizon implicitly determines the timing of instrumental actions, tacitly drawing upon the process of metric projection as described in section 3.3. It may be that attention is on occasions explicitly directed towards the timing of sound and movement, as the case studies indicate. In this case, although the outcome may vary with differing modes of attention, the underlying principle remains the same: the protentional horizon is structured in a specific manner and consequently specifies the timing of upcoming musical events.

7.3: Concluding remarks

In the foregoing I have outlined in some detail a phenomenology of instrumental performance, aiming to capture the sense of instrumental performance as a subjectively motivated, bodily act. This has involved the development of the idea that bodily activity can be seen as the expression of a temporalising consciousness. In differing ways, the articulation of bodily movement, and the movement of attention that guides and directs it, ultimately implicate the structure of internal time-consciousness. Husserl's model of time-consciousness can be applied to account for the intrinsic temporality of the body, and in particular the dynamic morphology of bodily movement and visceral feeling that is intrinsic to an unfolding kinetic melody. It follows that temporal constitution underlies the double performance of perceptual

awareness and the internal relationship of perception and action. Further, there is a constitutive priority to bodily self-affection over the hetero-affection of perception, which points to the lived body as the primordial passive basis of intentional awareness. This position is consistent with the idea that bodily activity is perceptually driven (that a musician should 'listen and react'): it also points to the idea that the lived body offers a primordial sense of temporal passage, which is underscored by the role of the body in maintaining a sense of pulse and tempo.

Instrumental performance is also subjectively motivated in the sense that instrumental coordinations and actions, along with the timing of those actions, are mediated through a continual attenuation of awareness, a directing of attention towards salient concerns. The issue is one of characterising the movement of attention in a way that captures the sense of agency, yet without presupposing that it is motivated by egoic activity. Husserl claims that passivity stands in relation to egoic activity, where the connection between passivity and activity is the movement of attention. Gallagher identifies the sense of agency with the longitudinal intentionality of a protentional continuum. This raises the question of the relationship between attention and protention. Mensch argues that anticipation is the movement of attention that is motivated by the affective power of protentional content, yet also suggests that this affectivity is passively realised and so appears to reduce agency to the passive workings of consciousness. To resolve this problem I have proposed that the relationship of agency and attention is born out by the supposition that the movement of attention consists in the modulation of the affective power of protention, and its distribution across the protentional continuum. Thus, in the continual movement of attention towards the performance situation (the listening), the protention of bodily movement—and consequently musical sound—is actively

shaped (the musician reacts) in accordance with the underlying purpose in hand (to serve the music).

Chapter 8: The Co-constitution of Musical Time

> We have, therefore, the following situation: two series of events in inner time, one belonging to the stream of consciousness of the composer, the other to the stream of consciousness of the beholder, are lived through in simultaneity, which simultaneity is created by the ongoing flux of the musical process…. [T]his sharing of the other's flux of experiences in inner time, this living through a vivid present in common constitutes… the mutual tuning-in relationship, the experience of the "We," which is at the foundation of all possible communication.[1]

This thesis characterises metric projection in terms of the structure of internal time-consciousness.[2] Given the position that temporal awareness is the accomplishment of a temporalising consciousness, a critical matter is the application of this analysis to an intersubjective awareness of temporal passage. A closely related issue is the appropriate understanding of time; in short, does a shared temporality originate as a sharing of an objectively constituted time, or does it involve a co-constitution of subjective temporal passage? The analysis I present in Chapter 7 draws upon the idea that bodily behaviour is the expression of a temporalising consciousness. The case that I have made to this point is that motivated bodily movement is the expression of a temporalising consciousness (or an intrinsic temporality). In particular, from the first-person perspective, instrumental actions are experienced as kinetic melodies, and are oriented in relation to metric pulse through the process of metric projection. I have also argued, on the supposition that egoic activity is marked by the movement of attention, that subjective agency consists in structuring the anticipative sense of unfolding events.

In the following I will draw together these positions, again drawing upon the findings of the case studies and upon the basis of theoretical positions outlined in

1 Schütz, 'Making Music Together', 92.

2 Chapter 3.

Part One, and so develop an account of musical interaction and the shared experience of musical time. In section 8.1, I discuss how the synchronisation of musical actions is constitutively possible, given the presupposition that time-consciousness is fundamentally an accomplishment of subjectivity. In section 8.2, I explore more fully the relationship between intersubjectivity and time-consciousness, in particular the constitutive basis for what is termed a 'proto-empathic' awareness of other subjects. Section 8.3 presents an account of the co-constitution of 'world-time', the shared sense of constituted time that encompasses the living present of others, so going beyond a shared sense of time objectively understood. The constitution of world-time provides for an understanding of a shared musical time, realised through the co-projection of metre. It also arises in conjunction with the constitution of a 'we-together', or as it has been described here, a connection, or locking-in that takes place between musicians.

8.1: Simultaneity and synchronisation in objective time

If we accept that the living present is the accomplishment of a temporalising subjectivity, then a question to consider is how this might be realised as a shared accomplishment, one that permits the temporal coordination of actions between subjects. A provisional answer to this question lies in the transverse intentionality of the retentional-protentional continuum, which Husserl identifies with the awareness of the succession of objective moments. Put another way, transverse intentionality provides for our awareness of the world as a transcendent objectivity and also the (objective) time of this world. Although the constitution of the world is a subjective accomplishment, it is nonetheless the constitution (in part) of an objectively existing world, which itself has its own objective time, commonly recognised as a measurable

‘clock-time’. Yet, the world is itself shared with other individuals, and as such the ‘now’ of the living present is one and the same for all:

> One and the same thing-world is constituted for us, one and the same time [is constituted] as objective time such that through this, my Now and the Now of every other—and thus his life-present (with all immanences) and my life-present—are objectively "simultaneous." [3]

All things being equal, a clear correlation exists between the objective duration of events and our experience of that duration: a metronome set at a faster tempo is *perceived* as being faster; we can *hear* the difference in the respective patterning of durations of shuffle and straight time, and this sensitivity will typically correspond with objective measurements; when we hear an uneven pattern of beats, we do not attribute the experience to disturbances in our perceptual capacities. In Hasty’s terms, a projected duration is based on a retained sense of the duration of an objectively existing musical event.[4] Similarly, the timing of instrumental actions is founded on the perception of objectively occurring events. The capacity to judge the timing of events may depend on time-constitution as a subjective accomplishment, yet it remains directed towards an objectivity which transcends that act. It also presupposes that the sense of the sequential ordering of events is preserved in retention, and that events occurring at the same moment retain the sense of simultaneity as they fade into the past. Otherwise, the reference for an unfolding duration would at best be ambiguous. As we have seen, this requires that the retentional modification of events proceeds at a ‘constant rate’.[5]

I have argued that the capacity to accurately discern and anticipate temporal duration is founded in the double intentionality of time-constitution; in the

3 Husserl, *Analyses*, 632.

4 See page 114.

5 See page 117. By extension, protentional modification similarly constitutes events, such as the fulfilment of a projected duration, as temporally approaching at a constant rate.

‘interweaving’ between longitudinal intentionality, in which events are perceived as temporally receding at a constant rate, and transverse intentionality, in which determinate duration becomes manifest.[6] This being the case, the double intentionality of time-consciousness provides us with a means to ‘gear into’ the world, to gain some form of traction into events as they unfold. Yet, as Husserl remarks, as a world that is itself one and the same for each of us, it follows quite trivially that our perceptions and actions take shape within a shared (objective) framework of time. Musicians performing together attend to one and the same range of sounds, so that for each individual, the musical events occur at the same moment as for one another. It is hard to imagine what it would mean for this not to be the case.[7] Similarly, objectively speaking the perceptible durational patterning of rhythm and metre is the same for each individual:[8] given the supposition that the subjective experience of a metrically ordered rhythmic pattern typically correlates with its objective form, by extension the temporality of the experience of each musician will, in certain respects, be morphologically identical.[9]

The seeming obviousness and simplicity of these points might obscure what is actually a more complex matter. As Roholt observes, the manner in which a perceptual act is structured will have a distinct impact upon the overall experience.[10] Metric organisation is a case in point. Metre is a virtual structure which orientates the

6 See section 3.3.

7 Assuming they are in reasonably close proximity. Clearly, at a certain spatial distance one player may hear a musical event at a discernibly later moment. All the same, the discrepancy in the hearing of events—the experience of a 'later than'—still presupposes a shared now.

8 As Schütz remarks, ‘all the activities of performing occur in outer time, the time which can be measured by counting or the metronome or the beat of the conductor’s baton’. Schütz, ‘Making Music Together’, 95.

9 This is particularly so in terms of what they *hear*. If they *play* the same rhythmic line, the identity is complete: if they play contrasting lines the identity in this respect will consist merely in moments of coincidence.

10 See pages 61-63.

perception of sounded events, whether we consider metre as an accentuated grouping of a sequence of time-points or a dynamic complex of projections. I may hear the same durational patterning of sounds as my neighbour, but the malleability of meter means that our perceptions and interpretations may not be the same.[11] Again, the perception of musical events is not the same as their production, even if the latter fundamentally depends on the former. Musicians do not simply respond to, or align themselves with external musical sound, but rather are actively involved in its ongoing creation, responding to and anticipating one another within an immersive sonic environment. Further, as remarked, the case study indicates that the accomplishment of groove requires a connection between musicians. To recall:

> When it grooves is when the musicians all interlock... when everyone is on the same page, and when everyone locks in, that's when it really swings, that's when it really grooves.[12]

This connection is empathic in the phenomenological sense of an intentional awareness that is directed towards other musicians (as musicians),[13] and predicated on the interaction between musicians; the listening and reacting to the unfolding musical event. In short, music performance is dialogical, or as it is often expressed, it is an *act of communication*. In this communication, the nuances of timing play a significant part. To recall the remark of another participant:

> I have other musicians that I like to play with [be]cause... I like their rhythmic feel, that it is the same as mine... A saxophone player I play with sometimes, I love playing with him because... his quavers feel the same as mine, it feels like... we're propelling the same forward motion, you know, there's a connection of the subdivision.[14]

Where the performance of music presupposes a shared sensitivity to temporal passage, specifically to the developing duration of metric pulse, the coordination

11 London, *Hearing in Time*, 65; Danielsen, ‘Here, There and Everywhere’, 19–20.

12 participant_8_ [80426:81373]

13 See footnote 55, page 185.

14 participant_7_ [15655:16136]

between musicians involves an ongoing negotiation of metric pulse which demands at some level a mutual empathic awareness. It follows that from a phenomenological perspective, the accomplishment of groove requires more than an account of how instrumental actions within an ensemble might become synchronised within an objective clock-time: it also calls for an examination of the relationship between time-consciousness and intersubjectivity, and also the constitution of a temporal phenomena that Husserl refers to as 'world-time'.

8.1.1: Establishing connections: empathy and intercorpereity

The positions of Doffman (following Keil, that groove arises through the interplay between musicians)[15] and Roholt (that the experience of groove is a motor-intentional feel)[16] provide starting points for a consideration of the empathic connection between musicians. These views can be mutually accommodated by taking up Høffding's identification of intercorpereity as a source of musical passivity.[17]

Roholt's position can be developed by acknowledging that musicians *actively* engage with musical sound. In effect, they both establish and respond to the feel of musical sound, being sensitive to and also manipulating timing patterns and nuances. Instrumental actions are themselves motor-intentional, so that both the perception and *production* of musical sound will have an affective dimension. We can talk about musical interaction as an intercorporeal engagement in precisely this sense. In identifying intercorporeity as a source of musical passivity, Høffding describes the interactions between musicians as an embodied engagement. His argument is that the musician as perceiver and producer of musical sound parallels Husserl's description

15 See section 2.2.1

16 See section 2.3.3

17 See section 2.4.1

of the double sensation of touch, where the hand is experienced as both touching and touched. The relevance of the double sensation to intercorpereity is that:

> When my left hand touches my right, or when I perceive another part of my body, I am experiencing myself in a manner that anticipates both the way in which another would experience me and the way in which I would experience another.[18]

For Høffding, the point can be extended to musical interaction:

> I touch the music in bringing it forth, but it equally touches back and plays me. This music is of a physical nature. Vibrating into my body, it touches me and my fellow musicians' bodies, which means that I, th[r]ough the music, touch them and they touch me.[19]

Describing the music as 'touching me' is perhaps a little naïve: the point is better made by referring to intercorporeity, understood as a mode of musical passivity, in terms of the affective dimension of motor-intentional movement. Each musician participates in bringing forth the totality of sound, where their movements are inflected through the ongoing exploration of that totality, or specific aspects of it: they also contribute to its collective enactment, establishing and attenuating timing relationships as they 'push' and 'pull' against the pulse and/or one another. As such, the connection between musicians, and the synergy that consequently arises, is not merely a matter of a passive accommodation to the timing nuances of other musicians. Rather, it occurs as an active adjustment, of anticipatively responding to each others timing patterns in ways that serve the music, where the adjustments are mediated through the motor-intentional feel of instrumental actions. The affective dimension of motor-intentionality, then, serves as one basis for the empathic connection between musicians, as the dynamic aspect of intercorporeity. Given the argument of section 7.1 that the affectivity of motor-intentionality is experienced as a kinetic melody, this offers an indication of how the relationship between time-

18 See Zahavi, *Subjectivity and Selfhood*, 157.

19 Høffding, 'A Phenomenology of Expert Musicianship', 216.

consciousness and intersubjectivity comes into play in musical interaction, and so offers a means of further developing an account of the empathic connection.

8.2: Time-consciousness and intersubjectivity

In section 8.1, I discussed the issue of how time-consciousness as a subjective accomplishment might lead to a shared sense of temporal passage. The answer I presented is provisional and involves certain presuppositions. This is because the question itself is prefigured by a deeper and more complex issue; namely, how time-consciousness as a subjective accomplishment might establish intersubjectivity, understood in relation to both an awareness of the world as one that is shared with others, and the empathic recognition of others *as* subjects.[20] In order to provide a sense of this issue, it will help to outline Husserl's treatment of intersubjectivity.

Concerning the issue of a shared world, we can recall that what appears to consciousness through the process of temporalisation, and in particular through the synthesis of appearances, is a world that transcends, or exceeds our perceptions of it.[21] Sound that originates through the vibrations of a musical instrument is not a (direct) product of consciousness, although our experience of it as audible sound is. Husserl argues that the constituted concrete world is 'intersubjectively open', which is to say the world and its objects necessarily appear as phenomena that may be experienced by others.[22] Given that our direct (visual and tactile) experience of concrete objects is perspectival, the same objects may be experienced by other subjects from other perspectives, so that I am able to see (or touch) what is for me the near side of an object, whilst at the same moment another might see its far side.

20 Rodemeyer, *Intersubjective Temporality*, 59.

21 See 257.

22 Zahavi, *Husserl and Transcendental Intersubjectivity*, 50–51; Zahavi, *Subjectivity and Selfhood*, 166–167; Rodemeyer, *Intersubjective Temporality*, 53–55.

Sound is also experienced as originating from the world as a phenomena that may, in principle, be experienced by others. Although the experience is not perspectival in the manner of the visual world, sound is typically heard as having a point of origin, so that listening from different perspectives might radically alter the experience.[23] The principle of open intersubjectivity extends to the experience of objects, concepts, situations and also musical sound as having a horizonal network of intersubjectively structured meanings. That is, the world (necessarily) offers the possibility that others might ascribe meaning to it, whether that meaning is shared, complementary, overlapping or conflicting with our own. The open intersubjectivity of the horizons of the world and its objects, then, indicates the possibility of other subjects. Moreover, in our actual encounters with others, we experience them as existing within *our* world, as presented to us, and it seems reasonable to suppose that 'they'—insofar as we can be sure of a 'they'—encounter us as existing within their world as presented to them. Put another way, we encounter others as existing within the same objectively existing world as ourselves.[24]

The experience of a world that can in principle be shared, as a structural outcome of the constitutive process, contrasts with empathy, which relates to our direct, concrete encounters with others. The challenge from a phenomenological perspective has been to account for our conviction that we experience others as experiencing subjects, given that we have no direct access to their lived-experience. The question of empathy also concerns our ability to identify their particular

23 Ihde describes in detail how sound functions to disclose properties of the surrounding world. See *Listening and Voice*, 61–71.

24 Zahavi argues that Husserl takes this point further to suggest that the intersubjectivity is itself a precondition for the constitution of objectivity; that is, we cannot constitute the world as transcending individual consciousness without a prior awareness of the possibility of the existence of other subjects. See Zahavi, *Husserl and Transcendental Intersubjectivity*, 33–34.

intentional states; their thoughts, moods and purposes.[25] From a Husserlian perspective, due to its radical alterity, the subjectivity of the other must be given empathically, which is to say their lived-experiences are ‘presentified’, or again that ‘what is primally present in stream B can appear only appresentationally within the primal present of stream A’.[26] Zahavi observes that the issue also implicates time-consciousness, as the constituted streaming present of the other is precisely that which is inaccessible;[27] as Husserl remarks, the 'time of my streaming life and that of my neighbour is… separated by a deep abyss’.[28] It follows that ‘[t]he experience of others can... also be understood as an experience of foreign temporality’.[29] One reason for this separation is that the ‘before’ and ‘after’ of the streaming present is constitutively prior to objective time,[30] so that a shared sense of the lived time of the streaming present cannot be predicated upon an objective coincidence.

Husserl’s initial position is that the empathic recognition of the subjectivity of others draws upon the recognition of ourselves as a bodily subject. His argument is that through my own experience I come to a recognition of the connection between my body and my consciousness. I experience my body as something that I live through; I experience my body’s movements and its pains and sensations, and I freely control it through the agency of my own will. In encountering the bodily appearance of another person, I recognise in their bodily behaviour a similarity to my own, and through this, by a tacit process of association empathically perceive them

25 Zahavi, *Self and Other*, 137–139.

26 Zahavi, *Husserl and Transcendental Intersubjectivity*, 69.

27 Ibid., 68–69.

28 Husserl, *Zur Phänomenologie Der Intersubjectivität*, 339; cited by Zahavi, *Husserl and Transcendental Intersubjectivity*, 68. He continues, ‘if the time of my own streaming life were one with my neighbour, the two of us would be one I with one streaming life, one stream of lived-experience’.

29 *Husserl and Transcendental Intersubjectivity*, 70.

30 Husserl, *On the Phenomenology of the Consciousness of Internal Time*, 350–351; Rodemeyer, *Intersubjective Temporality*, 60.

as also having a consciousness.[31] Further, I recognise that they view the world from another perspective; that my 'here' is not the same as their 'here', but rather for them is ‘there’. I also find my consciousness has no control over their bodily movements, and so recognise that this bodily consciousness is 'not mine'. Finding their appearance to be that of a consciousness that is not mine, I perceive them as an experiencing subject who is not me, but another subject.[32]

Although a tacitly occurring comparison between my bodily consciousness and the bodily appearance of others may be necessary for the recognition of the subjectivity of others, a view exists that it is not sufficient. The argument is that the body of the other does not appear to me in the same way that I appear to myself. My body appears to me as the zero-point of my perceptions, that is the 'here' from which I view the world; also as my perceptual access to the world, as something that I directly experience through sensations of pain and movement, and as subject to the spontaneous acts of my own will. None of this is true about the appearance of another.[33] Consequently, the description of the empathic process requires further development.

8.2.1: Intersubjective temporality and proto-empathy

As we have seen, besides our living in objectively the same world, Husserl takes the view that we do so within the same objective time; in particular, that my 'now' is, objectively speaking, the same as the 'now' of my neighbour. Yet, only subjectively lived time provides for the sense that the present instance is intrinsically related to

31 To be clear, this is not to be understood as a cognitive process of analogical reasoning.

32 Zahavi, *Self and Other*, 132–135; Rodemeyer, *Intersubjective Temporality*, 121–123; Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 241–244.

33 Zahavi, *Self and Other*, 135; Rodemeyer, *Intersubjective Temporality*, 123–124; Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 244–245.

past and future moments. The objectively manifest time of clocks and sundials, which for Husserl is a derived temporality, is simply a succession of moments, where each moment exists in isolated abstraction: as such, it is not sufficient to sustain a shared sense of the lived passage of time.[34] Consequently, Husserl suggests that in our encounters with others the world is constituted within a 'co-present',[35] or 'world-time',[36] which is to say, an intersubjectively shared sense of the coming to and passing of events in the living present. The question is how a co-present, or world-time, might be constituted.

For Rodemeyer, the appearance of world-time arises through an 'intersubjective temporality'. Her argument is that Husserl's structure of inner time-consciousness is *itself* intersubjectively structured: the realisation that the world presents itself as a place that might be experienced by others, and our awareness of others as experiencing subjects, arise directly through, or are made possible by, certain inherent features of retention and protention. In one respect, intersubjective temporality relates to open intersubjectivity: the sense that an object might be experienced by others is retained as a meaningful feature of the experience of the object, as that experience becomes absorbed and assimilated within the background of consciousness.[37] The critical component of Rodemeyer's position relates to Husserl's conception of a 'proto-' or 'primordial empathy'. In the *C-Manuscripts* (2006), Husserl accepts the position that an analogising comparison is insufficient to account for the conviction that the bodily appearance of the other is that of an experiencing subject. It follows that this associative empathy must be supported by a

34 According to Zahavi, Husserl's claim is in fact that 'the co-presence of others is founding with respect to the mundane present'. *Husserl and Transcendental Intersubjectivity*, 69.

35 Ibid.

36 Rodemeyer, *Intersubjective Temporality*, 59–70.

37 Ibid., 109–110, 124.

'primal intentionality inherent in the manifestation of a continuity with others, which… is continually mediated as ad-presenting'.[38] The claim here is that an evident continuity exists between my conscious awareness and the awareness of my neighbour, in which I have a primordial awareness of them as an experiencing subject within the immediacy of the living present.[39] This proto-empathic awareness goes beyond (‘ad-presents’) what is explicitly given by their bodily appearance, yet is distinct from an empathy understood as an analogising comparison.

We can account for proto-empathy by referring to the fact that the presence of others has a distinct impact upon how we experience the world. Rodemeyer cites Jean-Paul Sartre's description of 'the Look', where Sartre describes the de-centering impact of being caught in the gaze of another person—where, that is, I am no longer at the centre of the world, because I experience the world no longer as being only for me.[40] Rodemeyer links this affectivity of others to Husserl’s structure of internal time-consciousness by arguing that it is permitted or enabled by a certain ‘structural openness’ of protention. As we have seen, we can understand the objects we encounter as drawing our attention, and this may occur in differing respects.[41] We may hear musical sound yet only tacitly, in which case we are drawn to place it at the focus of attention, as an invitation to listen. We may also be drawn in to explore the horizons of a sound that is already the focus of attention, towards the rhythmic details of the melody or the sonic qualities of a particular instrument.[42] In that exploration we are, as it were, open minded as to what we might find: we find an

38 Husserl, *Die C-Manuskripte*, 437; translated and cited by Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 239; see also Rodemeyer, *Intersubjective Temporality*, 118–119.

39 Paraphrasing Høffding, we might describe this as an inchoate recognition of the other as a ‘proto-subject’.

40 Rodemeyer, *Intersubjective Temporality*, 166–167; Sartre, *Being and Nothingness*, 395–400.

41 See page 276.

42 Rodemeyer, *Intersubjective Temporality*, 156–157; Husserl, *Analyses*, 197.

indeterminacy latent in our anticipations of the future, which is to say an openness to the possibility that things may not be as we expect.

Rodemeyer argues that this openness is an essential pre-condition to our being drawn towards an object, and moreover, is founded in protention.[43] Accordingly, protention is more than the spontaneous act of projecting forward in anticipation on the basis of past experience, as described by Husserl. It is also 'the openness in temporalizing consciousness that goes beyond its own fulfilment',[44] and so makes it possible for an object to draw our attention. Rodemeyer extends this idea by suggesting that protention also permits an openness to the other subject, who 'affects me through her constituting activity', and so 'converts the world-for-me into an intersubjectively shared world'.[45] The time-constituting process of the other is able to have a distinct affective, and thus de-centering, impact upon my consciousness, as the openness of protention permits me to recognise that there is more to the other than is given by their appearance. Thus, for Rodemeyer, 'the call of the other's consciousness *is* my primordial experience of the other',[46] meaning that proto-empathy is a basic primary awareness of the subjectivity of the other, awakened through the affective pull of their constituting activity. It follows that both retention and protention are intersubjectively structured, and this itself implies that subjectivity is itself always already intersubjective: the process of temporalisation realises not just a subject, but an intersubjective consciousness, in the sense of a subjectivity that is open to the possibility and recognition of other subjects.[47] Our awareness of ourselves as temporal beings is intrinsically related to the realisation of

43 Rodemeyer, *Intersubjective Temporality*, 150–152.
44 Ibid., 152.
45 Ibid., 167–168.
46 Ibid., 168.
47 Ibid., 172–174.

self as one consciousness amongst many; where all exist within a shared world and shared world-time, which arises through and within an intersubjectively structured temporality.[48]

There are a few comments to make here. Assuming that Rodemeyer is correct in identifying an openness to protention as a pre-condition for a proto-empathic awareness, how the affectivity of the constituting activity of another subject is distinguished from the affectivity of a (non-constituting) object still requires explanation. Further, as Mensch argues, it is not clear how an 'openness in temporalising consciousness that goes beyond its own fulfilment'—that is, an openness to the indeterminacies of future events—might be transferred to an openness to the consciousness of other subjects.[49] For Mensch, proto-empathy is founded not through the others pull on my attention, but rather upon an 'identification' or 'coincidence' with the other as a constituting subjectivity. This is because ‘the basis of our similarity as subjects is the pre-individual source of our constitutive activity’;[50] our recognition of others is founded in our recognition of them as a temporalising subjectivity, and in particular that for each of us, subjectivity has a passive, which is to say an anonymous and pre-individual (pre-egoic) basis. Thus, proto-empathy is a recognition of others as subjects that involves a ‘transfer’ of the sense of my constitutive origins, as ‘I can bridge the gap between the appearing of the other’s body and the appearing of my own only by presupposing a common

48 Ibid., 174.

49 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 256–257. Mensch also argues that the claim that protention permits affectivity is problematic, on the grounds that protentional content (along with the content of primal impression and retention) itself bears an affective weight, prior to the constitution of an object or objectlike formation, ibid., 260–266. See also page 282.

50 Mensch, ‘Husserl’s Account of Our Consciousness of Time’, 246.

source for the functioning that animates both'.[51] However, why the presence of others should invite a transfer of the sense of my own constituting activity requires further clarification.

8.2.2: The body as a form of temporalising consciousness

What is it about (the presence of) the other that should lead us to be affected by their constituting activity, or tacitly transfer the sense of our own pre-individual temporalisation, so that we come to recognise their subjectivity? The answer must take us back to the position of Merleau-Ponty, that the body is a form of consciousness, and more specifically that bodily behaviour is the expression of a temporalising consciousness.

This line of thought is taken up by Pokropski, who claims that 'the similarity with the other is not visual but… lays in the dynamics of behaviour'.[52] Given the position argued in section 7.1, that bodily actions are constituted and enacted through the intrinsic temporality of the body (i.e., the processes of retention and protention) in the form of kinetic melodies, it follows that bodily behaviour is the overt expression of the lived body's own temporality. Consequently, the temporality (and so the subjectivity) of the other is revealed through the manner of their bodily comportments, or as Husserl remarks, their 'changing but incessantly harmonious behavior'.[53] For Pokropski, the concept of harmonious behaviour signifies a 'coherence and continuity of movements… a temporal structure, which transcends

51 Ibid., 246–247. Similarly, Zahavi argues that 'the primal mode of my own streaming present "coincides" with that of the other, who is experienced precisely as someone who is time-constituting'. Zahavi, *Husserl and Transcendental Intersubjectivity*, 68.

52 Pokropski, 'Timing Together, Acting Together', 900.

53 Husserl, *Cartesian Meditations*, 114; cited by Pokropski, 'Timing Together, Acting Together', 899.

successive gestures and movements and unites them',[54] and he identifies this temporal structure with Luria's kinetic melody.[55] As such, bodily behaviour discloses itself as the fulfilment of protentional anticipations that are shaped on the basis of retentions of past phases of movement:

> [T]he other's "harmonious body" presents itself in perception as the living and "minded" body because it manifests ("appresents" in Husserl's words) the other's own temporal stream of consciousness. In short, the other's body as expressing and moving appears surrounded by a temporal horizon, and as a result the other is experienced as another time-constituting subject, as an *alter ego*.[56]

Critically, it follows that proto-empathy involves a pre-reflective awareness of the dynamic patterning of bodily movement. This awareness arises through the longitudinal intentionality of the retentional continuum, in which, to recall, the continual fading of each impression into the past is synthesised into a '*quasi*-temporal arrangement of the phases of the flow'.[57] Where transverse intentionality is 'directed towards *what* appears in the flow—a temporal object',[58] through longitudinal intentionality 'we retain and anticipate the very dynamics of the other's behaviour, in other words, we grasp "how" it is continuously changing from phase to phase'.[59]

Developing Pokropski's position, it is possible to mediate an empathic awareness through musical sound precisely because proto-empathy arises through an inchoate awareness of the *dynamics* of musical sound. The participants in the primary case study describe how they primarily listen to sound, and that their awareness of other musicians is principally as co-producer's of sound. Following Pokropski, in the immediacy of live performance, the unfolding dynamic pattern—

54 Pokropski, 'Timing Together, Acting Together', 899.
55 Ibid. See also footnote 10, page 250.
56 Ibid., 900.
57 Husserl, *On the Phenomenology of the Consciousness of Internal Time*, 87. See page 112.
58 Pokropski, 'Timing Together, Acting Together', 902.
59 Ibid., 901.

the *how* rather than the *what*—of musical sound permits the primordial awareness of other musicians as living, experiencing subjects. A proto-empathic connection between musicians is possible because musical sound is dynamically expressed as and through the intrinsic temporality of the body. Put another way, the dynamics of instrumental actions are inherent in the morphology of musical sound, which is consequently *heard* as the expression of a subjective consciousness.

Clearly, an awareness of bodily dynamics will help us to distinguish between a constituting subject and a non-constituting object in most cases, even where the object is not static. Yet, certain types of 'pseudo-subjects' may well duplicate the overt behavioural dynamics of bodily consciousness. Recorded music and film mediate the dynamic appearance of living subjects; an animated set of points might appear to 'walk' or 'wave'; speculation exists concerning the possibilities of robotics, while robotic machines are apparently already able to 'run', 'jump' and 'catch'. Pseudo-subjects appear to act like subjects, yet lack subjectivity. They do not necessarily lack a bodily presence (as the example of robots indicates), nor require one (as shown by the examples of recorded music and film). Although the awareness of the dynamics of behaviour, along with an openness to protention and a transfer of sense of pre-individual temporalisation might all be necessary for a proto-empathic awareness, the existence of pseudo-subjects implies that we are yet to identify its sufficient condition.

8.2.3: Interaction and proto-empathic awareness

Arguably, the shortcomings of the approaches of Mensch and Rodemeyer stem from a failure to acknowledge the heteroform nature of our encounters, and to clarify whether any specific mode of encounter is necessary for the awakening of a proto-

empathic awareness. In particular, Rodemeyer characterises the analogising comparison between self and other as the recognition of a similarity between their bodily appearance and mine, so that their behaviour is ‘like mine’. This appears to imply that empathy is founded through adopting an observational stance towards others.

In a critique of 'theory of mind'—an account of intersubjective awareness that is widely held within cognitive psychology—Gallagher and Zahavi note the difference between observational and interactive encounters. In brief, theory of mind entails the supposition that for the behaviour of another to be intelligible we *conjecture* that they have a mind: we then interpret their behaviour by simulating or theorising as to their 'internal' mental and emotional processes.[60] Against this position, Gallagher and Zahavi cite the observations of Max Scheler, that what we understand as mental and emotional states are expressed, and so can be directly apprehended, through our bodily behaviour. Scheler’s claim is that we are ‘directly acquainted with another person’s joy in his laughter, with his sorrow and pain in his tears, with his shame in his blushing, with his entreaty in his outstretched hand'.[61] As Pokropski observes, ‘the expressive dimension of the other’s body reveals his or her “inner life”’,[62] and again this may be particularly evident in the way they phrase the melodic line as they play ‘Bye bye blackbird’. To be clear, the point is not that we directly experience the joy or sorrow of the other as our own. However, neither is our empathic awareness of these experiences mediated through a cognitive theorising, but rather through the immediate perception of their bodily comportments.[63]

60 Gallagher and Zahavi, *The Phenomenological Mind*, 171–175; Zahavi, *Self and Other*, 99–100; Gallagher, *How the Body Shapes the Mind*, 206–208.

61 Scheler, *The Nature of Sympathy*, 260; cited by Gallagher and Zahavi, *The Phenomenological Mind*, 182.

62 Pokropski, ‘Timing Together, Acting Together’, 899.

63 Gallagher and Zahavi, *The Phenomenological Mind*, 188.

For Gallagher and Zahavi, the failing of theory of mind stems from the assumption that our default manner of relating to others is from an observational stance, which is to say that we primarily base our perceptions of others by adopting a third-person perspective.[64] They argue that our primary form of engagement with others is, in fact, through face-to-face interactions that are oriented from a second- or first-person perspective, towards a 'you' or a 'we', rather than a 'they'.[65] This is evident in studies of early development, which suggest that ‘from early infancy humans (and perhaps some animals) have capabilities for an interaction with others’, where ‘[i]nfants, notably without the intervention of theory or stimulation, are able to see bodily movement as goal directed’.[66] In interacting with others we do not pause to theorise about their internal states, but directly respond to and engage with their behaviour, which we take to be the expression of another subject, who is similarly aware of us as being an experiencing subject: we behave towards others on the basis of what we take to be their feelings, intentions and purposes, which we read directly from their overt behaviour.[67]

In one developmental study a mother appears to her child by means of cameras and monitors, in turn as ‘live’, and then again as a recording (i.e., as a pseudo-subject). In the live scenario the child becomes engaged with the appearance of the mother. When played the recording the child disengages.[68] Clearly, a measure of recognition of the mother arises on the part of the child, which does not in fact rely upon the mother’s bodily presence. Yet, the fact that the mother’s actions are similar to those of the child is not sufficient for that recognition: the empathic

64 Gallagher, *Phenomenology*, 192–193; Gallagher, *How the Body Shapes the Mind*, 209–212.

65 See Gallagher and Zahavi, *The Phenomenological Mind*, 187–191; Gallagher, *How the Body Shapes the Mind*, 216–220.

66 Gallagher and Zahavi, *The Phenomenological Mind*, 188.

67 Ibid., 189.

68 See Zahavi, *Self and Other*, 177; Gallagher, *Phenomenology*, 196.

response of the child only occurs where the (image of the) mother attentively responds to the child. Pokropski argues that a proto-empathic awareness arises through an attunement in the dynamics of behaviour between interacting subjects that is 'based on rhythmicity and the melodic structure of performances (e.g. movements, facial gestures, vocalisation)', and 'precedes active forms of understanding and cooperating with others'.[69] This attunement is in fact the primary intersubjectivity referred to by Doffman,[70] and is evident at the earliest stages of development:

> Despite the fact that infants do not have advanced perceptual systems or concept of the other person, they are able to communicate and respond to the other's behaviour. The temporal, rhythmical structure of behaviour that expresses affective states plays a crucial role in these phenomena.[71]

Pokropski is surely correct in suggesting that the awareness of the dynamics of behaviour serves to establish a proto-empathic awareness. The critical element is interaction itself, through which the dynamics of behaviour of the other are not only evident, but appear as attuned and responsive to our own, and so establish a continuity between the consciousness of self and other; that is, a mutual proto-empathic awareness.

8.3: The co-projection of metre in musical interaction

Where proto-empathy is concerned specifically with the primary awareness of others as experiencing subjects, the awareness of the intentions, thoughts, feelings and purposes of others is attributed to an 'active empathy'.[72] We have seen that Husserl characterises this awareness in terms of an analogising comparison, yet interaction again may play a crucial role. Consider an everyday encounter, such as when I offer

69 Pokropski, 'Timing Together, Acting Together', 902.
70 See page 53.
71 Pokropski, 'Timing Together, Acting Together', 903.
72 Ibid., 901.

my hand in greeting another person, and they reach out to grasp and shake it; or when, as I move towards the door, they reach for the handle and open the door for me. In these cases, the actions of the other disclose an awareness of myself as a subject, as having the intention of passing through the doorway. The primary case studies confirm that music performance (ideally) consists in fully engaged interactions between performing musicians, where the success of the intended outcome of these interactions demands a mutually responsive and anticipative awareness of the specific intentions and purposes of others. A sense of groove is identified as involving a connection or locking-in between musicians, that arises directly through the interaction between them. The quality of the outcome depends significantly on the degree to which they pay attention to one another and/or salient aspects of the performance situation, or again to which their attention is directed elsewhere. Musicianship demands that musicians listen to one another, that they play in ways that are appropriate to the musical situation (that is, at the right tempo, at the right dynamic level, in phase with the metre): they are expected to be aware of where they are in the music, to have the ability to quickly correct themselves should they find themselves in the wrong place our out of phase with the metre, to play in ways that support the expressive musical ideas of the other musicians, and to anticipate which musical directions their co-players are likely to take. At the same time, they are often intimately aware of how others are coping with these demands.

In this type of situation, the immediate awareness of another person as an experiencing subject arises through a responsiveness in their behaviour that is attuned and appropriate to my actions and intentions, and also our shared goal. Put another way, their overt behaviour appears as the expression of an operative intentionality, an active process of decision making that consists in the directing of

attention towards salient concerns, or again, a receptivity towards phenomena that appear within their horizons of awareness. As purposeful, co-ordinated—and particularly in the case of music performance, *timed*—bodily actions, their behaviour also expresses a motor-intentionality—a subjectively-lived bodily awareness, which manifests itself through the predominantly pre-reflective control of their instrument, in a manner that is appropriately and anticipatively responsive to sound, co-performers and audience. As argued in section 7.1, this bodily intentionality is itself founded on the deeper processes of time-constitution. In particular, habits and skills are already acquired through the extensive repetition of bodily movements (subjectively realised as kinetic melodies) where the self-affectivity of those movements has (and continues to) become sedimented within the body schema. In our interactions, the actions and responses of others indicates an awareness and anticipation of myself that I do not find in inanimate objects. A recording of another musician may sound 'like me', but there is a significant difference between playing with other musicians and playing along to a recording, precisely because another musician will respond to me in a certain manner; as one participant remarks, ‘you get an instant reaction, [an] interaction’.[73] An immediacy is evident in the mutual responsiveness in our interactions, and the actions of others will often appear to pre-empt or anticipate my actions and intentions. The appropriateness of their responses suggests an awareness of what has preceded the present moment. Their actions are typically in accordance with a certain meaning that I can attribute to the situation, and their responses towards me are typically consistent with the meaning that is inherent in my own actions.

73 participant_4_180416 [19327:19553]

The appropriateness of an anticipative response indicates a deeper awareness, the background understanding of the shared cultural norms and expectations that govern the type of situation we find ourselves in. Musical understanding is acquired through the immersion within, and active engagement with, a musical culture. The assimilation of such experiences and activities into the formation of complex, conceptually and culturally informed skills, is predicated on the capacity of a self-constituting ego to reflect upon its own experiences and actively modify its passively grounded (bodily and conceptual) understanding. Clearly, a shared musical endeavour requires a shared understanding,[74] which in turn entails residing within a shared musical culture, and an awareness of the operative assumptions within an ongoing situation, along with the values, practices, habits and dispositions that are appropriate to it. The point here also underlines Rodemeyer's claim that time-constitution is intersubjective in respect of both active and passive consciousness. The ongoing decision-making within a social dynamic (which for Rodemeyer, is ultimately predicated on the openness of protention) is made with respect to what are essentially social norms and expectations assimilated within passivity. Moreover, through the performance of the protentional continuum, we have specific expectations concerning our own actions, yet these are also predicated upon the likely behaviours of others. Although attentive listening implies that I, as a musician, am driven by the actions of others and *vice versa*, the fact of my constant anticipations of the actions of others ensures that my actions are the expression of my own agency.

From the perspective of enactive phenomenology, this anticipative sense and understanding of the situation that is evident in musical interaction is explained by the fact that motor-intentional movement and the performance of musical sound

74 In the context of music performance the point is confirmed by the research participants. See section 6.4.1.

exhibit a temporal horizon; or put another way, that bodily behaviour is the expression of a temporalising consciousness. The ability of the other to responsively anticipate my actions is only possible if they continually retain and protend a sense of the past and future, and synthesise the flow of upcoming and passing moments into a unified, coherent and meaningful sense of ongoing events, including my own actions. Ultimately, when interacting the intelligibility of the actions of others is founded on the recognition that they attribute meanings and act with purposes that in some respect coincide with my own; which is to say, on the basis of a temporally structured and interpretive, perceptual awareness which reveals them as a foreign temporality.[75]

The constitution of a co-present, or world-time arises when this active empathic awareness of the intentions of others takes place in the context of activities which require an ongoing 'mutual cooperation'.[76] Echoing the citation from Schütz that opens this chapter, Pokropski claims that through experiencing others as having shared or complementary goals and purposes within the immediacy of the moment, we come to constitute a 'we-consciousness'. This arises as a coincidence of the streams of lived-experience encompassed within a shared world-time, which 'mutually fulfil and constitute a shared intentional experience'.[77] On this point, Husserl states:

> He acts in 'my present', and I am for him in his present. We are not only in the same context of things or in the same 'place', rather we are in the 'shared' present, in the common present place, in the intentionally common surrounding world. We are its subjects and as 'we' are mutually constituted.[78]

75 See page 300.

76 Pokropski, 'Timing Together, Acting Together', 903.

77 Ibid., 904.

78 Husserl, *Zur Phänomenologie Der Intersubjectivität*, 212; translated and cited by Pokropski, 'Timing Together, Acting Together', 904.

The locking-in, connecting, merging or meshing, of musicians is more than the synchronisation of actions in objective time. The constitution of a ‘we-together’, within a co-present world-time, is precisely where I experience the lived present of the other as coinciding with my own:

> The motoric sequence of intentional action and its distribution in time is thus divided between me and you. Mutual anticipation of actions and coordination is replaced by co-constitution. We participate together in a shared temporal horizon. The shared present, which is co-constituted by me and you, is something we live through together.[79]

Thus, the possibility of the phenomenon of locking-in rests upon the mutual, proto-empathic awareness of the ‘how’ of bodily dynamics, mediated primarily through musical sound and the affectivity of motor-intentionality (realised as the intercorpereity of musical passivity). In effect, it arises as the joint constitution of a shared temporal horizon; a synergy of intentions and purposes realised as and within a living co-present; or again, as a co-constituted 'we', that appears as a coordinated and unified entity within the flow of world-time.

As detailed in section 6.4.1, the co-performance of groove demands a shared understanding, in particular of the rhythmic patterning of the groove, its rhythmic shape at the metrical level and also of the subdivision of the pulse: this itself requires a shared identification of the metric pulse and tempo; musicians must tightly coordinate their instrumental actions within a temporal framework, which requires that their judgement of the occurrence of the pulse and metre must coincide. It would follow that a shared sense of musical time, in fact, consists in the co-constitution, which is to say the *co-projection*, of metre within the framework of a co-constituted world-time. In terms of the absolute values of temporal duration, the respective projections of metre need to be precise to a certain degree, although not necessarily

79 Pokropski, ‘Timing Together, Acting Together’, 905.

exactly coincide: timing nuances or processual discrepancies are permitted, indeed preferred, as they then contribute to the co-constitution of musical effects, which is to say the feeling of groove (or again, swing and other related terms). This implies that the shared sense of musical time does not consist in the production of sound within a pre-established metrical framework, but is itself the ongoing co-enactment of musical time, the co-projection and continual recapitulation of metre. Moreover, processual discrepancies arise as discrepancies in the respective projections of metre in accordance with Danielsen's local time shift model, which is to say in the respective contractions and expansions of metric pulse, or again, the durational patterning of sounded rhythmic gestures.[80]

Where a felt agreement occurs between musicians in the timing of musical actions, this co-constitution develops as an increasing harmonisation in, and solidification of, the dynamic interchange between musicians as the rhythmic patterning of musical sound is cyclically reiterated. This harmonisation and solidification corresponds to an increasing sedimentation of the retained patterning of interactions, enabled by the fulfilment of protentional anticipations of tensions (that is, the deliberate realisation of tension through the non-fulfilment of a passive expectation of temporal regularity) and release. In part, this is experienced as an (intersubjectively mediated) intensification of feeling. Yet is also experienced as a developing sense of security in a negotiated musical time, one that permits self-expressive improvisations that may be played over, or intersect with, the groove. In short, it is the co-constitution of a 'musical chameleon', a rhythmic patterning that is 'still the same animal', but also one that grows and adapts 'to the different influences that the different musicians are introducing'.[81]

80 See page 91.

81 participant_1_ [52779:53896]

8.4: Conclusions

My primary intention in this chapter has been to develop a phenomenological account of musical interaction; in particular, of the shared sense of time that is essential to performed live music, and moreover with reference to the experience of groove. Yet this account might also be seen as a phenomenology of musical interaction, specifically of the entrained behaviour of musicians as they synchronise their actions around a shared sense of pulse. In many respects, the account is significantly different to the naturalised theory of musical entrainment outlined in section 2.1.2. The principal points of departure are in the characterisation of primary intersubjectivity as being mediated through a proto-empathic awareness, and my commitment to Hasty's theory of metric projection and the implication that metre is enacted. A naturalised account of musical interaction relies upon entrainment as a reductive principle, and also an impoverished understanding of attention. A phenomenology of entrained behaviour incorporates the subjective experience of synchronisation oriented around the co-constitution (co-projection) of metric pulse, and offers an account of its constitutive origins.

To have a shared sense of temporal passage—in Husserl's terms, existing within a world-time—amounts to more than co-existing within the succession of moments of an enduring and objectively existing time. Critically, our empathic awareness of others, our conviction that we encounter one another as experiencing subjects, is constitutively founded through our interactions. This is because our interactions are characterised by a responsive and flexible awareness that is appropriate to our own unfolding understanding of the situation, which indicates that those we encounter anticipate our own actions on the basis of what has immediately preceded the present moment. This is particularly evident in music performance.

Moreover, this anticipative awareness, which is expressed through our overt bodily behaviour, is characteristic of a temporalising consciousness; that is, of a subject who is perceptually aware of their surroundings through the ongoing passage of time. My assumption has been that a primary musical intersubjectivity is not reducible to a physiological process of entrainment. Rather, I have presented the position that it consists in a proto-empathic connection mediated by the longitudinal intentionality of the structure of internal time-consciousness; that is, as an attuned awareness within musical interaction of the dynamics of behaviour of others, made possible by the fact that the bodily behaviour of the other is the expression of a temporalising consciousness. Through proto-empathic awareness, the constituting activity of the other exerts an affective pull on one's own consciousness, and may well consist in a transfer of the sense of pre-individual temporalisation. In turn, the awareness that arises of the bodily appearance of the other as a foreign temporality permits the co-constitution of musical time, and so within this, the co-enactment of musical sound. Thus, in essential respects, musical interaction consists in the co-projection of metric pulse within a co-constituted world time.

Chapter 9: Conclusions

In this thesis I have presented a perspective of music performance, and in particular of the individual and shared sensitivity to temporal passage, or again the capacity to predict the timing of anticipated events, identified by Pressing as an essential presupposition of musical rhythm.[1] This perspective assumes a phenomenologically-informed view on time, or more specifically, time-consciousness, where temporal awareness is identified as a constitutive accomplishment. This contrasts with the idea that the awareness of temporal passage is in some manner an emergent phenomena within a configuration of causally determined, material processes. Adopting a constitutive approach allows us to appropriate Husserl's detailed and rigorous formulation of the living present, and apply it in the context of music to musical time, as I have narrowly defined the term.

In Part One, I set out the context for the research; the background of studies of music, phenomenology and time, and the research questions that framed my approach. The research has been concerned with specific temporal modalities of music, these being pulse, metre, tempo, rhythm and groove. I have studied and explored these modalities in the context of the live performance of contemporary popular music, and related them to the experience of expert musicians, which is to say musicians of long standing and a high degree of musical competence. To restate, the principal research questions for the thesis is: how do we best account for and characterise the ability to coordinate instrumental actions within a shared temporal framework? The question has been considered from a phenomenological perspective, and so has been in cast in terms of phenomenological understandings of subjectivity, temporality, embodiment, intersubjectivity and the life-world. That is, it has been

1 See page 4.

considered in terms of the individual awareness of temporal passage, how that awareness is mediated through the experience of the body, and how it comes to be shared between individuals within music performance. In keeping with this approach, other questions that have framed the research have been: how to best explain the ongoing perception of musical metre and pulse; how to characterise rhythmic instrumental actions as a subjective, bodily agent; and how an enacted temporal framework comes to be intersubjectively shared. As the research is also specifically concerned with a musician's relationship with musical time, the thesis also addresses the question: how do musicians understand and experience time, and the temporal musical phenomena of pulse, tempo, rhythm and groove?

I have situated the thesis with respect to contemporary studies of musical entrainment, and three recent, phenomenologically-informed studies of music performance. In reviewing the former, I have presented a naturalised perspective of temporal awareness that contrasts with a phenomenological approach. Musical entrainment draws upon Jones' theory of dynamic attending, and I have made the case that when scrutinised the perspective amounts to a materially reductive account of temporal awareness.[2] Moreover, it describes and relies upon a theoretically impoverished understanding of subjectivity and its internal structures, in particular of the phenomena of attention. This is, perhaps, inevitable: as a naturalised perspective, entrainment assumes (even if only implicitly) an objectivating conception of subjectivity and subjective experience, as well as time itself. By contrast, the phenomenological view is that subjectivity should be interpreted as an intrinsic dimension of conscious awareness: it is precisely *not* an object, and should not be treated as such. Consequently, as we have seen, in essential respects subjectivity *is* temporality.

2 See section 2.1.2

The three studies of musical experience can be described as phenomenological in contrasting and varying respects. Each explores musical experience in great depth and detail, and Roholt and Høffding offer interesting and valuable developments of phenomenological positions. Although these studies address the experience of musical time (specifically groove) and the experience of music performance as it unfolds in time, none make any substantial reference to Husserl's structure of internal time-consciousness. The case of this thesis is that a full phenomenological understanding of the experience of musical time and music performance is best served by referring to Husserl's ideas concerning time-constitution. In this respect, I have sought: to develop Roholt's position that groove is the affective dimension of motor-intentionality;[3] to present a phenomenological counterpart to the concept of entrainment, founded on metric projection;[4] and develop an understanding of the relationship between egoic activity and musical passivity.[5]

Clifton and Schütz have both made a connection between the experience of music and time-consciousness, where their concerns have been primarily with the perception of music. Neither Clifton nor Schütz consider music experience in terms of the internal, metrical organisation of rhythm, nor with the specific matter of the judgement and anticipation of determinate temporal duration. In this thesis I have established a relationship between Husserl's structure of internal time-consciousness and Hasty's theory of metric projection. Although Akbar has recognised a complementarity to these perspectives, I have taken the analysis further to indicate exactly how the projection of metre is realised through the double intentionality of

3 See section 7.1.4

4 See section 8.3

5 See section 7.2

the retentional continuum, and its application to the bodily and intersubjective experience of music performance constitutes a novel approach. For Husserl, the awareness of time involves the projection of a temporal horizon, in which events are experienced as advancing from the future and receding into the past. This flow of time, constituted as the standing, streaming living present, is essentially the flow of consciousness. This constitution is aptly described by Merleau-Ponty's as a *dehiscence*—an opening or bursting forth, where sheer alteration is transformed into the coherent and intelligible relational domain of subject and world.

My case is that *metric projection is itself a constitutive process*, and is subtended by retentional and protentional modifications of primal impressions. Moreover, *the structure of internal time-consciousness serves as the constitutive basis for metric projection*. Notably, the double intentionality of the retentional continuum is critical. The capacity to retain a projective duration relies upon the awareness of temporal fading and determinate temporal duration, which are respectively constituted through longitudinal intentionality and transverse intentionality. The interweaving of these intentionalities underpins the interdependence of temporal fading and duration, which are nonetheless distinct phenomena. A similar consideration applies to the possibility of projected duration. To project is to anticipate the moment of an immediately upcoming event, and by the above, this relies upon the longitudinal intentionality (for the sense of the moment drawing nearer) and transverse intentionality (specifically how much nearer) of a retentional-protentional continuum. Applying Husserl's structure of internal time-consciousness enables an understanding of metrical awareness as an ongoing accomplishment of an experiencing subject, and is also able to accommodate the projection of complex metrical structures.

The research question concerning the awareness of temporal duration and, by extension, metrical pulse has been addressed in purely theoretical terms. Part Two describes my approach to the other questions that have informed the research process, and that ultimately relate to the bodily performance of rhythm and the shared sense of temporal passage. In this part of the thesis I have presented the methodological positions that have framed the research process, the research context, and the methods applied to gather and qualitatively analyse the research data. The intention has been to relate the issues involved to the concrete experience of musicians within the immediacy of performance, and the question of how musicians understand and experience musical time. To this end, I have appropriated the methods of human science phenomenology, while looking to work within the methodological frameworks of phenomenology and human science phenomenology, where I have drawn upon the latter specifically as a means of gathering, organising and analysing the research data. My initial intention has been to gain a deeper and enriched insights into a musician's experience of performance. From a phenomenological perspective, to secure a meaningful sense of the experiences of others, which cannot itself be directly accessed or communicated, is a significant challenge. All the same, it is possible to gain insights into how individuals understand and experience performance and the temporal modalities of music, and I have sought to achieve this by undertaking semi-structured interviews with nine research participants.

In the primary case study, I have sought to effect a phenomenological reduction and suspension of presuppositions through the choice of questions in the interview schedule for the case study. The interview schedule has been designed to elicit the experience of music performance as it unfolds in time, providing a context

in which the specific relationship with pulse, tempo, rhythm and groove can then be investigated and explored. I have also undertaken a preliminary study, which has involved the self-reflective examination of the performance of an elementary instrumental skill. I have considered a hermeneutic issue that arises in relation to the interpretation of the experience of performance by both the participants and myself as researcher. Husserl's *epoché* was originally intended as a suspension of all positing and presuppositions so that experience might, as it were, speak for itself. Yet, it has to be accepted that any investigation of a research topic will always proceed on the basis of existing interpretations. I have assumed the position, indicated by human science phenomenology, that the descriptions given by research participants should serve as the primary means of orienting the analysis and identifying thematic indications.

The case studies have produced a number of findings that arise through the analysis of the interviews, which I have detailed in Chapters 5 and 6. In summary, the findings are that instrumental coordination is experienced as a self-motivated, affective dynamic of cyclic patterns of movement; that pulse and tempo are both actively stated and passively followed; that a judgement of tempo co-originates with the bodily and vocal articulation of a musical line (typically, the melody); and that the performance of rhythm (and by extension, groove) involves the articulation of horizontal and vertical moments. Concerning the matter of a shared sense of time, the findings are that groove involves a shared, culturally-informed understanding of the music; that the possibility of groove depends upon a specific form of shared experience, where musicians are unified as a 'collective'; that this experience involves an ongoing communication and negotiation, including of such matters as tempo and the nuances of timing (specifically of the subdivision of the pulse and of

the ‘push and pull’ against, or indeed *of*, the pulse). The study also indicates that musicians do (and are expected to) maintain a level of mutual empathic awareness, primarily through listening. In particular, the possibility of groove involves, or depends upon individuals in some manner connecting, merging, or locking-in, where this phenomenon correlates with an experience of intensity. An unanticipated finding also emerges from the primary case study that has lead me to widen the initial frame of reference for the thesis, to consideration of the importance of maintaining an appropriate attentional focus as a performance unfolds. This is a recurrent and strongly emphasised theme in the conversations with the participants.

There are two reservations to note in relation to the research methodology and methods. The first concerns the design of the interview schedule, which is intended to elicit the research participant's understanding and experience of the issues identified by the research questions. Each research question concerns a complex matter in itself, and as a result the schedule incorporates a large number of questions, which as I have mentioned, may appear excessive for a semi-structured interview. I have attempted to compensate for this by being selective with the schedule during the interviews. Yet, there were occasions where a participant has offered a response of potential interest, where in my desire to work through the interview schedule in the agreed time for the interview, I have failed to pursue the remark. I believe that the schedule might have been more concisely formulated, and that with more confidence in my ability to guide the discussion and take up and pursue interesting responses, deeper insights and understandings may have come to the fore. The second reservation relates to the analysis of the findings. As the intention is to establish insights into structures of consciousness, I have sought to identify recurring themes as they appeared across the entire range of interview data. Typically, human science

phenomenology involves an idiographic analysis of the transcriptions of individual interviews, prior to a comparison and cross-referencing for recurrent themes. This approach is time-consuming and there was insufficient time to idiographically analyse each transcription. However, an alternative approach would have been to select a small sample of the interviews for idiographic analysis. Although some insights would likely already be lost prior to the analysis, I believe this approach might well have culminated in more nuanced and variegated findings.

In Part Three, the initial analysis of metric projection in terms of time-constitution has been applied and extended to the bodily performance of rhythm, and musical interaction—in particular, the shared sense of temporal passage. I have also interpreted the matter of maintaining an appropriate focus. The analysis has been undertaken in the light of the findings from the case studies, with reference also to the contemporary studies discussed in Chapter 2. I have drawn three further conclusions. The first, to restate, is that the *intrinsic temporality of the body is the constitutive basis of both the ordered articulation of bodily movements (viscerally experienced as a kinetic melody), and the capacity to time those movements as rhythmic movements, organised through an ongoing projection of metre.* This position offers another perspective of Hamilton's definition of rhythm as order-in-movement, where rhythm is revealed within the temporally constituted flow of inflected bodily movement.[6] In talking of an intrinsic temporality, the idea is that the anticipative character of bodily movement involves a projection forwards and backwards to future and past in the immediacy of the present moment. Put another way, the timing of bodily behaviour is not governed by an internal clock that measures time understood as a series of objective time-points. Nor, from a first-person perspective, can it be accounted for purely in terms of entrained endogenous

6 See page 27.

processes. This is because timing of bodily movement is regulated and organised through the process of time-constitution. Moreover, temporal awareness is mediated by both the impressional appearances of external phenomena and somatic self-affectivity.

The second conclusion is that the focussing of attention is futurally oriented. If egoic activity is marked by the movement of attention, and subjective agency constituted by way of a protentional continuum, then the *operative intentionality intrinsic to egoic activity consists in modulating the distribution of affective power within the protentional continuum.* Immediately past events may form the basis for expectation, or indeed a range of anticipations that result in differing phenomena competing for attention. Yet, as *constituting*, the ego is not merely passively receptive to potential matters of concern, as this would ultimately imply an absence of agency: rather, the ego actively selects and focuses upon what it determines as salient matters, so determining an appropriate way to engage with unfolding events.

The third conclusion is that the *shared sense of musical time is founded in the co-projection of metrical pulse*. This co-projection is configured within a larger co-constitution of a shared life-world in a shared world-time. It is also *the co-projection of a shared temporal framework through and by which musicians coordinate their instrumental actions*. The accomplishment of groove also depends upon this co-constitution of musical sound, as an intersubjective engagement that draws upon an empathic and reciprocated awareness of others. The possibility of empathy is ultimately founded in interaction: the dynamic patterning of bodily movements, and the attuned manner in which the actions of the other anticipatively respond to my own, reveal the other as a foreign temporality. This itself presupposes that bodily behaviour is the expression of a temporalising subjectivity.

Future directions

In Chapter 1, I made the claim that a phenomenological understanding of time-consciousness would offer a viable naturalised phenomenology of musical interaction. In the thesis I have set out a phenomenologically-informed characterisation of a musician's capacity to time their instrumental coordinations with other musicians. In itself, and even taken together with the perspective of entrainment, the possibility of a naturalised phenomenology is only partially fulfilled. However, I do believe the thesis offers a firm basis for accomplishing this aim. I suggest that a naturalised phenomenology of musical interaction would conceptualise the entrained oscillations of physiological systems as temporally correlating with the realisation of a co-constituted (co-projected) metrical framework. This would serve as a starting point that could be developed further by investigating the relationship between time-consciousness and the functioning of the nervous system. In this respect, substantive work has already been undertaken from an enactive, phenomenological perspective known as 'neurophenomenology'.[7] Positions in neurophenomenology may be developed that enable us to incorporate entrainment and projection within a naturalised, phenomenological framework.

A further line of development for this thesis is a theme that emerged within the primary case study which can be termed 'participation in a group consciousness'. Participants did refer to, or confirm, the sense of being immersed within a larger dynamic as akin to participating within an extended, group consciousness. An interesting line of enquiry would be to clarify the meaning of this claim, and to investigate the constitutive grounds of its possibility. I have speculated over this subject in the course of the research, and believe that the treatment of temporal

7 See Thompson, *Mind in Life*, chap. 11; Gallagher, 'Time in Action'.

awareness, and in particular the idea of the co-constitution of world-time in which musicians connect or lock-in, provides a basis for investigating this closely related phenomena.

To conclude, I referred in the opening chapter to the widely understood observation that time is fundamental to the experience of music, although properly speaking the essential matter is time-consciousness. As we have seen, time-consciousness is a central concern of phenomenology. The case presented here is that Husserl's structure of internal time-consciousness has significant implications for our understanding of music's temporal modalities, and also of the individual and collective performance of music.

Appendix


p_7: something's happening [both laugh].. there's nobody on the planet..
pb: yeah
p_7: that wouldn't go 'that is swinging!'
pb: a-ha
p_7: and that's the lesson I do with students, you know..
pb: a-ha
p_7: they know!.. 'ting', 'ting', ting', they all know..
pb: okay
p_7: when it's happening and when it's not happening, they all put their hand up and down..
pb: okay
p_7: it's.. the weirdest.. magical thing.. ever.. there's no subdivision, it's crotchets.. it's not 'ting ting-ta-ting',.. it's 'ting', 'ting', 'ting', 'ting', 'ting'... and they go 'it's swinging'.. 'yeah, yeah, oh, yeah, yeah', you know.. there's the arms going up and down, everyone agrees, you know..
pb: a-ha
p_7: it's really interesting.. [laughs] and it feels the same to me
pb: a-ha
p_7: as that thing when you're playing live, and everybody knows..and it's just easy, and it's happening..
pb: a-ha
p_7: and you're., it's like an out of body experience almost, you know..
Example of claim that 'swing' is unmistakeable.
Frill
01/10/2016 11:56
Group (students) recognition of swing the wierdest, magical thing ever – a phenomena that is strange, unusual, inexplicable, beyond belief?
Frill
01/10/2016 11:58
Restatement that focussed groove can't be denied. Live situation analogous to teaching scenario.
Frill
01/10/2016 11:57
Focussed groove like an out of body experience – sense of dissociation from bodily being, loss / alteration of sense of agency?
Frill
01/10/2016 12:01

pb: are you able to elaborate on.. wha., what that.. what that's like, or.. what gives it that sense of it being...

p_9: these are difficult questions.. er.....

pb: or., or is it simply what you were talking about before..?

p_9: it's., it's., it's basically when you lose your ego..

pb: a-ha.....

p_9: you're not showing off..

pb: a-ha

p_9: and...

pb: so there's no 'I' or 'me', in a certain kind of sense..?

p_9: erm..... I.. I don't know.. don't know..

pb: a-ha

p_9: erm... you're just trying to add., add your little bit.... and..... and then you shouldn't be trying..

pb: a-ha

p_9: you should just be, er... letting the music.. speak for itself..

Lose your ego – loss of sense of narrative self? *Not showing off* – playing **for / with reference to** the group as a whole without reference to / rather than for oneself.
Frill
15/10/2016 15:24

shouldn't be trying – not a deliberate effort / attempting to impress / play something particularly difficult / 'flash'? *Letting the music speak for itself* – again, simply listening and responding rather than imposing predetermined musical phrasing / ideas.
Frill
15/10/2016 15:28

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