Prelude to a Theory of Gestural Time, Proto-Geometry, and Music

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Abstract. This chapter draws on prompts from Rolf Inge Godøy, Edmund Husserl, and a range of Indigenous, queer, and decolonial phenomenological thinkers to frame a theory of gestural time for music that rethinks the relationship between experience and perception. It plays with the distinction between Husserl's "exact" and "descriptive" sciences, putting the latter to work as a productive foil to the drive for empirical exactitude that animates much perception and cognition theory. It does so not to replace exactitude, but to enrich the experiential nexus. Gesture emerges as an at least equally (and perhaps more) plausible first principle for reunderstanding the mechanisms by which perception functions. Focusing on a debate on categorical identity between Rainer Polak and Justin London, it considers the possibility that a turn to affect—understood in Baruch Spinoza's sense of a pre-personal flow of force relations that condition the very possibility of experience and perception in the first place—can work to elide certain kinds of experimental cleavings to a priori category distinctions and to at least provisionally displace perceptual exactitude as the primary location for understanding musical experience.

Keywords: gesture · gestural time · phenomenology · affect · Indigenous knowledge systems

1 Introduction

Among many other things, Rolf Inge Godøy's interventions into how we might understand musical gestures—whether construed as the metaphorical gesture of a musical utterance, the physio-spatio-temporal gesture of a musician's (or listener's) performed action, or the 'gesture' of a perceptual act (or the phenomenological data such an act produces)—open onto manifold possibilities for music analysis, music creation, and artistic research. In the first part of this chapter, I will explore two of those possibilities, deploying Godøy's multivalent usage to think about something we might call gestural time and to pursue the implications of what Edmund Husserl (1983) refers to as a "proto-geometry" that grounds—but, importantly, operates outside the bounds of—what he calls the "exact sciences." I have recently begun to explore the capacity of this concept for thinking about temporal processes in music from the Black radical tradition (Stover 2021b). The second half of the chapter will inquire into how such a turn can help us better understand certain kinds of gestural qualities in music and their affective implications, setting

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these ideas into a dialogue with queer, postcolonial, and Indigenous-epistemological phenomenological practices. In doing so, I have three aims. First, to insist on addressing the cultural and political implications of any phenomenological apparatus, and to bring these concerns productively into the discussion on how to 'do' phenomenology (Ihde 1986; Spiegelberg 1975; van Manen and van Manen 2021). Second, to consider the gestural texture of any act of phenomenological engagement as a Husserlian first principle. Natalie Depraz, Francisco Varela, and Pierre Vermersch (2003) make this notion explicit when they describe virtually all of Husserl's key concepts in gestural terms: the epoché as a "gesture of suspension" (p. 26), the "gesture of reduction" (p. 45), the "gesture of placing the habitus in suspense" (p. 216; in Husserlian language, bracketing the natural attitude), and so on. And third, to use this work to recuperate and put to work a controversial claim by Senegalese poet and philosopher Léopold Sédar Senghor, in which 'Hellenic reason' is counterposed with 'African emotion' (Senghor 2003, p. 288), by suggesting, borrowing a concept from Martin Heidegger (1962), that the gestural or affective qualities of temporal events are covered over by rationalist epistemological frameworks and that we would do well to strive to 'clear' or 'unconceal' the gestures that precede and ground quantitative analysis.

2 From Gestural Objects to Gestural Time

> To 'co-incide' suggests how different things happen at the same moment, a happening that brings things near to other things, whereby the nearness shapes the shape of each thing. (Ahmed 2006, p. 39)

To open the concept onto a somewhat broader range of inquiry applications, Godøy transforms Pierre Schaeffer's (1966) well-known "sonorous object" (*objet sonore*) into a more generalized "gestural object" (Godøy 2006, p. 149) more precisely located in phenomenological experience than in any kind of material-factical 'object-in-itself'. Gesture in this way becomes a mode of engagement with the "meso-level" of musical experience (Godøy 2017; see just below), which includes perceiving a received acoustical signal *as* gesture (the way the latter term is most often described in music theory and analysis; see Hatten 2004; Gritten and King 2006), the gestures that afford different kinds of musical performance (e.g., a conductor's movements or the way a player moves their body to achieve a certain performed task; see Stone 2007), and the ways in which we use physical or metaphorical gestures to describe, entrain to, or otherwise respond to musical data (e.g., dancing or toe-tapping or hand gestures to illustrate the 'shape' of a musical phrase).

Musical gesture generally, and the specific notion of framing a musical utterance as a gestural object, underscores music's temporality in an important way. This is probably too obvious to even need to say. But the turn to gesture was and remains a crucial intervention into a broader music-theoretical discourse on musical shape (see, for example, Tenney 1992), which relied on a more or less static metaphor that could only adequately describe the temporality of a musical utterance with some labor. A gesture is an action in time. Robert Hatten focuses this probably too-simple definition, defining gesture

> rather inclusively as *any energetic shaping through time that may be interpreted as significant*. By significant, I mean that for some interpreter, a gesture will convey information with respect to affect, modality, and/or communicative meaning. (Hatten 2006, p. 1, italics in original)

Hatten's provisional definition offers three important points for consideration. First is the "energetic" nature of a gesture, which we should interpret in differential terms, as a transfer of energy from one temporal location to another that is enacted precisely through and because of that gesture. As a gesture rather than a categorically precise shape, the end point of the energetic transfer is only provisionally known. Second is the subtle way he describes what is going on as a shap*ing*, which transforms the spatialized 'shape' into an active gerund. Third is what a gesture does for some interpreter: what is communicated, or (more important) what kind of a change in affective valence is made manifest. Gesture, in this sense, resides on the temporal-object side of the phenomenological experiencer-experienced nexus, and interpretation is what happens when one encounters the gesture. (This, we'll soon see, is close to the way I'll be focusing on the term/concept below.)

Crucial to this formulation, of course, is a gesture's temporal nature. Godøy's invocation of the gestural object and, soon—synthesizing Schaeffer's word that started it all—the *gestural-sonorous object* draw upon Edmund Husserl's (1991) well-known consideration of the temporal extendedness of what constitutes the 'now' of any experience. Husserl famously invokes a simple musical melody to illustrate this point, which has been taken up in phenomenologically-oriented musicology and music theory in manifold ways (for example, in Schutz 1976; Lochhead, 1982; Clifton 1983). Without laboring over all the intricate details, what is important here is the horizon of temporal experience, which, as Husserl describes, operates via two asymmetrical processes of retention (the re-presentation of a past experience in a lived present) and protension (the opening of experience onto an imminent range of possible futures). For Godøy, what he describes as the meso-level of musical experience (0.5 to 5 seconds; Godøy 2017) is the most logical timescale for conceiving, perceiving, and investigating music's gestural-sonorous objects, since that is the scale at which we can relatively unproblematically hold even a complexly composite event together in consciousness as a whole. The meso-level refers, then, to what Eric Clarke characterizes as a present that "can be dilated for as long as it is possible to hold a temporal object in a single 'nexus of apprehension'" (2011, p. 8).

Godøy alludes to the possibility that the musical macro-level can operate as a kind of gestural object too, but does not pursue the implications very far, except in the very important sense that a (meso-level) gesture's larger context matters for perception and meaning-making. Missing in a lot of the literature about musical gesture is something like the way Roger Sessions defines musical phrase, which William Rothstein also takes up: "What … is a so-called 'musical phrase' if not the portion of music that must be performed, so to speak, without letting go, or, figuratively, in a single breath?" (Sessions 1950, 13; see also Rothstein 1989, 3–4), meaning the phrase-like qualities of longer musical spans (the "so to speak" and "figuratively" of Session's provisional definition). It remains an open question as to how might we analogously consider longer 'gestures', perhaps cognitively afforded by repetition, developmental trajectories, culturally-marked syntactic behaviors, and the like.

But perhaps more important than all these temporal-categorical considerations is what a given gesture's temporal profile is *doing* in any given event. To turn back to Hatten's definition, a gesture is an "energetic shap*ing*" (emphasis added), which means a transfer of energy from one spatial and/or temporal location to another is taking place. A gesture, therefore, is defined by the fact that its specific kind of temporality is, again, one of energetic displacement: from *a* to *b* via the directed motion *i*, to put it in David Lewin's (1987) terms.

Godøy's gestural object resonates with an important concept from Husserl: the temporal object. For Husserl, temporal objects "are not only unities in time but … also contain temporal extension in themselves" (1991, p. 24). Importantly, this is an essential feature of *all* objects, as Alfred North Whitehead famously makes clear (e.g., Whitehead 1964, p. 165–167), even if it is not always immediately apparent. Husserl takes great care to clarify what is temporal about temporal objects and why it matters to think of them so, in doing so, playing with the multiple, perhaps seemingly contradictory ways in which we must strive to understand what time is in the first place. Time is, in one perspective, the medium in which events take place: "temporal objects … spread their matter over an extent of time, and such objects can become constituted only in acts that constitute the very differences belonging to time" (Husserl 1991, p. 41). From another perspective, though, the movement of events are what create time, hence Aristotle's dictum in Book IV, §12 of *Physics* that "time is a measure of motion and of being moved"; this is evident in many of Husserl's formulations, such as the notion of an "act-continuum" that engenders any temporal unfolding. (Some sources translate Aristotle's κινήσεως as "change" rather than "motion"; see Aristotle 2008 (109) and Bostock 2006.) Paradoxically, both of these perspectives are at once true for Husserl, and their co-constitutive nature is part of what makes the whole enterprise of trying to understand how "time-consciousness" operates—and indeed time's very ontological status—so endlessly complex.

But this is not a chapter on the ontology of time, it is about certain kinds of temporal phenomena that engender what we can now start calling *gestural time*. Gestural time is a particular way of being-in (or being-of) time. It is a form of time that, in Husserlian terms, is *anexact*; "essentially, rather than accidentally, inexact" (Husserl 1983, p. 166), meaning that, as gesture, it possesses a kind of qualitative precision not necessarily capturable using quantitative tools. (Or, better, quantitative tools fail to capture what matters about a temporal gesture.) This precision is temporal—some measure of time is either traversed or produced, depending on one's ontological commitment—but also, importantly, affective, in the sense of producing changes in an interlocutor's capacity to act. Ideas are multiplying here, so let me clarify what I mean by these two interrelated modalities.

On one hand, a temporal anexactitude—"roundness" as opposed to a circle or sphere is a spatial example given by Husserl, which Jacques Derrida (1978), Michel Serres (2018), and Gilles Deleuze and Félix Guattari (1987) put to work in varying ways—is a gesture in a context that produces a particular range of effects, which is irreducible to an abstract type. Another way to put this is that it presents a range of entrainment-affordances. An example is the "fork" (*garfo*) gesture in Brazilian samba. The fork is a repeated short–long–short figure, often notated as sixteenth–eighth–sixteenth notes, but in practice, each element of which is stretched slightly, such that each of the two

shorts is slightly longer than half a long and the long conversely is slightly shorter than notation would suggest. From another taxonomical perspective, the fork may be conceptualized as a triplet figure the middle term of which is slightly elongated. See Gerischer (2006) and Haugen and Danielsen (2020) for more on microtemporally fluid figures in samba. It is important that the stretching is neither quantitatively precise nor consistent from one iteration to the next, but rather the figure's gestural quality—its *forkness*—is continually being produced. This leads to the second hand: *how* the fork's gestural nature is produced in any given instantiation has to do with an ongoing flux of affective relations at play between performed gestures by the samba ensemble. As I have described elsewhere in the context of Cuban rumba (Stover 2018), the specific ways in which a given iteration of a repeated figure like the fork are stretched have to do with how the ongoing microtemporal flux of the music is being taken up, largely *precognitively*, by the player. (I'll turn below to a recent way in which microtiming behaviors have been presented by Rainer Polak and Justin London to think further through the stakes of these two considerations.) This is a tenet of theories of enactivist cognition, even if not always framed in precisely these terms, and serves as an important counterpoint to representational theories through which cognition drives embodied responses. So the affective affordances of an earlier or ongoing gesture have an effect on how one plays the fork, which in turn functions as an expression of the affective genealogy that partially conditions how its particular identity is staged. That expression is, again, anexact: it is inexact in that it cannot be known just how a given player will respond to a received stimulus, but essentially so in that an effect—a change of valence—is ever in the process of transpiring.

I've gone through this far too quickly, but have developed these ideas elsewhere (Stover 2018, 2021a). Some key points are worth delineating, however. My account of how affect operates stems from the long Spinozist tradition through which (1) the word affect is a shorthand term for the double movement of relational flows between interacting bodies; (2) affects are produced by those bodies and (3) also continually reconstitute them; (4) interacting bodies in this sense may be said to be acting on one another; (5) therefore what changes when a body is reconstituted within a nexus of affective flows is its "capacity to act" (Spinoza 2002) or its *valence* (its capacity to enter into new affective connections; see Varela and Depraz (2005) and Stover (2021a)). In other words, a body's affective valence is precisely what engenders both its actual actions and the ways in which responds to proximal actions, in an ongoing flow. In the fork example, it is precisely the ongoing gestural flux of microtiming pullings to and fro that conditions bodies (of performers, of the musical gestures themselves) to unfold in a particular shape in any given instantiation.

Gestural time is an important intervention into conceptions of musical temporality. As a concept, it is neither radical nor rare. For example, any time a classical performer transforms the more or less fixed notation of a musical score into a multiply-directed microtemporal expression, gestural time is being enacted. Most music, indeed, is gestural in this sense, but there are more overtly clear examples that help us understand why a turn to gesture matters: the shifting metric flux of Hardanger fiddle music, the nuanced prosody of Mississippi delta blues singing, the gestural rhetoric of Gagaku court music, each of which very effectively resists notational representation. Nancy Murphy's (2023)

recent work on flexible meter illustrates this vividly, if not precisely in these terms. What is phenomenologically important in this account takes us back to Godøy's work, and just what it is we are experiencing when we turn our attention to the gestural quality of any music, beyond or alongside any kind of purported isochronous representation that we might try to use to model our experience. Godøy wishes to clarify empirically "our capacity to capture and handle the ephemeral and temporally distributed features of music" (2017, p. 10). While we should raise our eyebrows at the notion of *capturing* anything, which has complex and fraught ethical implications, the underlying premise is promising: how deeply and to what degree of detail can we come to understand our *experience* of gesture in its very ephemeral and temporally-distributed nature? Further, how can we come to understand our experience of an experience of gesture—the stuff of what I call second-order phenomenological methodology—seeking to understand the lived experience of an interlocutor, in this case, the musical interlocution of an observed performer?

3 Husserl's Proto-Geometry

Early in the 1905 lecture that opens *On the Phenomenology of the Consciousness of Internal Time*, Edmund Husserl makes an astonishing point, the cognitive implications of which remain to be fully unpacked. In this passage, he explains that

> sensed 'synchrony' is not simply equivalent to objective simultaneity; sense equality of temporal intervals, given phenomenologically, is not straightaway objective equality of temporal intervals; and the sensed absolute datum is, again, not immediately the being-experienced of objective time (this is true even of the absolute datum of the now). (Husserl 1991, p. 8)

In other words, how one comes to experience synchrony or equality is separable from whatever we might call the objective data of that which is experienced. This is a crucial point that underlies my theory of beat span (Stover 2009) and Anne Danielsen's (2010) theory of beat bins (see Danielsen, Johansson, and Stover (2023) for a comparison between these analytic orientations). Both of these theories orbit around and seek to explain what we might call the *near-simultaneities* of two or more discrete acoustic events, which, regardless of the quantitatively precise locations of their onsets or perceptual centers, are held by a perceiver to be constituent parts of the same temporal gesture, for example the same beat, as a temporally-extended phenomenon. In other words, we can perceive them as synchronous even in their *objective* non-synchrony. We can choose to do this, and we can also find ourselves doing it without actively thinking about it.

In his book-length meditation on Husserl's "The Origin of Geometry," Jacques Derrida leans into Husserl's (admittedly brief) development of the concept of anexactitude. First of all, he considers Husserl's history-of-science account of how geometry, as an ideal science, coalesced from a more generalized "pregeometrical world," a "world of things disposed … according to an anexact space and time" (1978, 122). But this world "is a cultural world already informed by predictions, values, empirical techniques and the practice of measurement and inductiveness which themselves have their own style of certainty" (120). It's easy to read this as a naïve prehistory that was eventually overcome

by a more precise scientific episteme, but I would argue that is an incorrect and colonialist reading. As Derrida insists, "the protogeometer always already ha[s] at [their] disposal anexact spatiotemporal shapes and essentially 'vague morphological types" (123), and it is equally naïve to consider "this anexactitude of the object or concept to be… a 'defect'." To this end, we should always be on guard when terms like "deviation" or "discrepancy" are evoked, which (intentionally or not) pathologize anexact musical gestures as aberrations.

Derrida goes on to quote Husserl, from the passage in *Ideas*, volume I, where the concept of anexactitude is first spelled out:

> The most perfect geometry and its most perfect practical mastery of it cannot enable the descriptive natural scientist to express (in exact geometrical concepts) what he expresses in such a simple, understandable, and completely appropriate manner by the words 'notches', 'scalloped', 'lens-shaped', 'umbelliform', and the like—all to them concepts which are *essentially, rather than accidentally, inexact*, and *consequently* also non-mathematical" (Husserl 1983, p. 166; also in Derrida 1978, p. 122; italics in original)

The section where this crucial quote occurs marks something of a material-ontological shift through which descriptive "morphological concepts" are shown to coalesce in ways that always remain vague and fluid. Husserl insists that their vagueness is, again, not a defect but rather is an essential (and, importantly, "legitimate") quality. Husserl takes care to clarify two types of morphological essences: one that stems from "exactness of ideal concepts" (Husserl 1983, 167), which is the proper purview of what he calls the exact sciences, and one that flows from what he calls a "firmness and … pure distinguishability of generic concepts … which have their extension in the realm of fluidity," which is the purview of a more originary descriptive science. Exact and descriptive sciences can and do overlap in key ways—as, for example, Godøy's work has long demonstrated—but according to Husserl have very different aims, procedures, and animating questions. Isabelle Stengers meditates on a similar idea in her work on Alfred North Whitehead, also foregrounding the aesthetic (yet highly technical) nature of what I would call Husserl's descriptive orientation. Stengers writes:

> Between the most concrete experience and the various abstractions, there is no hierarchy for Whitehead. The artist's perception is not more authentic, it is different; and, what is more, it testifies to a trained eye. Nor is there anything painfully paradoxical about the the very fact that, when testifying that 'it' is never the same [referring to Whitehead's examination of Cleopatra's needle's relatively fixed or unfixed location on the Charing Cross embankment], she must say 'it', implying the stability that she nevertheless denies. The artist's testimony concerns the experience of a contrast but does not provide weapons to a contradiction. (Stengers 2011, p. 76)

The artist's experience will become relevant below as well.

Godøy's usage, in fact, is crucial for understanding why the tension between these two perspectives matters. In his earlier work, Godøy (1997) develops a "morphodynamical theory" of musical shape, drawing upon the work of René Thom and Jean Petitot.

According to the theory, "human perception is a matter of consolidating ephemeral sensory streams (of sound, vision, touch, and so on) into somehow more solid entities in the mind, so that one may recall and virtually re-enact such ephemeral sensations as various kinds of shape images" (Godøy et al. 2016, p. 2). That is, we perceive temporal events as examples of categorical types, and our ability to do so is an important way in which we make sense of the world. What Godøy and others (including Pierre Schaeffer) want to do is clarify the boundaries of a perceptual shape-category, which has led to many valuable studies that seek empirically to test those boundaries, asking what can change and how much before a gestural-sonorous object can no longer rightly be classified within a particular category. Elsewhere, for example, Godøy (2017, 10–11) draws upon Petitot's methodology to develop what he calls a "control space" and a "morphology space" in order to be very meticulous about the "what changes and how much" question. So far, so good: this exemplifies the exact-science trajectory in Husserl's account and resonates with gestalt theories of spatial-temporal recognition.

Husserl, however, admonishes us to resist this particular categorical imperative: "we experience 'bodies'—not geometrical-ideal bodies but precisely those bodies that we actually experience, with the content which is the actual content of experience" (1970, 25). To frame an experience in terms of its cleavage to a predetermined categorical model is precisely what the epoché is intended to, at least provisionally, elide. My contention extends from this: a turn, within a larger project of phenomenological variation, to the anexact gestural qualities of a perceived temporal event can put Husserl's notion of descriptive science to work as a productive foil to empirical exactitude. Not to replace the latter, but to enrich the experiential nexus. There are two reasons such a turn is important. First, it can allow us to call into question the particular ideal shape that we may be claiming underlies all the 'distorted' performed/perceived instantiations. This is an extraordinarily important political claim that I will turn to in the last section of this chapter. Second, as the following analysis will make clear, it can give us tools to resist certain kinds of assumed categorical a priori, especially those grounded in received ideas about cognitive limits, which, as I've suggested above, affect theory, with its focus on pre-cognitive processes, elides. In the next section, I'll stage my engagement with these two notions around a simple experiential question: are there two or three durational categories operating at the beat subdivision level in a performance of West African drum-dance music?

Both of these rationales are grounded on the fundamental phenomenological principles of reduction and imaginative variation. In terms of reduction, the first important step (as in all phenomenological inquiry) is to bracket the natural attitude—in this case, the epistemological presuppositions of a certain constellation of empirical practices and methods—and return to the experience to ask what else? Under what alternative experiential rubric is the temporal object knowable? Sara Ahmed (2006, p. 27) richly illustrates how our "bodies are directed in some ways and not others" (and Frantz Fanon (2008) clarifies just some of the hegemonic forces at work in orienting our bodies in particular directions), so the stakes of working, even provisionally, to bracket constraining or oppressive forces are very high. In terms of variation, then, the task is to deliberately and creatively shift one's orientation toward the object of experience, in order to produce novel experiential relations with it. Those relations, ultimately, change us, as Ahmed

poignantly puts it: "The 'new' is what is possible when what is behind us, our background, does not simply ground us or keep us in place, but allows us to move and allows us to follow something other than the lines that we have already taken" (2006, p. 62–63).

4 Micro-gesture and Phenomenological Variation

I'd like to turn now to Rainer Polak's (2010) empirical study of jembe music from Bamako, Mali. In this study, Polak suggests, among many other things, that a relatively consistent expressive-timing pattern occurs across trios of played events in manjanin, a 12-cycle drum-dance piece. Polak shows how, in a number of performances, this onset sequence maps very well onto a short–medium–long ratio. In some of his examples, this taxonomy seems quite clear-cut, for example, ratios of 26:32:42, 27:32:41, and 23:32:45 (see Polak's Table 4); whereas in others—for example, 25:36:39—he hedges, suggesting that perhaps a S–L–L taxonomy might be more appropriate. Polak compares four players' renderings of a repeated échauffement figure, which is important to the dramatic intensification of a jembe–dance dialogue. Also important here is categorical (non)overlap between *ranges* of the second and third pulses (the pulses which call into question the need for a medium–long versus long–long distinction). In his first three examples (for which Polak suggests a medium–long ratio) the ranges are nonoverlapping: 26–38 and 39–47 in the first case, 26–36 and 38–44 in the second, and 28–38 and 41–49 in the third. In the fourth example that problematizes this framework, the ranges overlap—32–40 and 36–41—calling further into question their categorical distinctness. Polak's concern about categorical slippage ultimately materializes as what he calls a short–flexible–long ratio, where the expressive lengths of the two outer onsets are relatively determinable, whereas the length of each middle onset is more fluid. I'll return to what I see as a productive liminality already built into Polak's taxonomical hesitation.

In his commentary on Polak's study in the same special issue of *Music Theory Online*, Justin London (2010) insists that S–M–L might not work as a practicable beat subdivision taxonomy since the timing distinctions are too small to be perceived according to these categories. London is probably correct according to the perceptual frameworks he enlists to stage his arguments. But at the same time, he acknowledges the persistent empirical there-ness of the timing ratios. How do we work through this interesting perceptual–empirical paradox?

In order to understand what is at stake here, both methodologically and ontologically, I'll quote London at length. London writes:

> Polak's approach challenges my arguments on [two] grounds, (a) that one can have three distinct subpulse-classes … and (b) [that] these distinct subpulse-classes may be defined qualitatively rather than quantitatively. I think he is correct on the latter, but not on the former. I am convinced from both Polak's empirical data and from his ethnographic reports that jembe players and listeners recognize categorical differences amongst subpulses….
>
> Where we disagree is whether or not one may have three distinct classes of beat subdivision. I believe Polak's data [show] that there are two, and that his [medium] category represents expressive timing variants of underlying short … or long …

> subdivision units. To be clear, I think Polak's data clearly indicate that jembe performers consistently play different subpulses with different durations depending on their position in the metric cycle. But Polak is making a stronger claim: not that these are simply expressively timed versions of one or two subpulse-classes, but that they manifest three categorically distinct subpulse classes.

The tension hinges on the word 'categorical', which is at best an unfortunate word choice and at worst a colonial insistence that things be put into categories in the first place: one of music theory's original sins. What is at stake in cleaving to a two- or three-category beat-subclass taxonomy? Very little, I'd say: except to the extent that one argument draws upon an epistemological apparatus built around what we understand a priori to be perceivable, as I have described above. I suggest this places too big an epistemological burden on perception, the way we currently understand it to function. This is where affect comes in. If affect does indeed function as a pre-personal—and therefore pre-cognitive—flow of force relations that changes one's capacity to act within an ongoing interactive context, and if affect's effects are observable through the empirically measurable events that unfold in that context, then we might be able to ascertain at least some of the ways any given musicking participant is being affected by attending to the very particular ways in which what they do changes over the time of the performance. This, then, involves both doubling down on attention to empirical details like timing ratios between trios of played events and taking stock of ongoing music-environmental stimuli that might have effected a subtle change in performance orientation: a 'call' that invites some kind of 'response'.

This is also where tempo comes in. The music Polak examines is very fast—faster than the speed of thought, Gilles Deleuze would say. As London makes clear, it's fast enough that we cannot categorically distinguish between discrete event-duration categories, even while we can—especially upon close, repeated listening—vividly and accurately describe how a particular part 'feels' using qualitative terminology. Polak demonstrates this beautifully with his examples where he extracts individual cycles and even individual instrumental parts and loops them in order to draw the listener's attention to specific timing details—a parallel can be made to Godøy's "control" and "morphology" shapes. But tempo might actually be crucial here. If affect likewise moves faster than the speed of thought, how does it function? Henri Bergson (1999) provides a possible framework, which has been instrumental in how Léopold Sédar Senghor and others have theorized communal interplay in African performance practice. Bergson theorizes an affective 'zone of indeterminacy' between reaction and action, an infinitesimal timespace within which we are affected, and before cognition and perception take place. Patricia Clough similarly describes the timespace of affect's operation as "the indeterminacy of autonomic responses" (2010, p. 209) within which consciousness can only be a "substractive" iteration that necessarily reduces away from affective complexity; there will always be an affective "remainder" to conscious perception. We act in this timespace before we realize it. In the dense, rapidly repeating context of Bamako jembe music (for one example of many), we might say we never quite have time to do the cognizing that follows and makes sense of (or categorizes) action. In short, again, we 'feel' it: according to the affect theory orientation I subscribe to, feeling always precedes and conditions

perception. What we feel is precisely the improvisational interaction between participants—the little or big extemporaneous gestures that continually redirect the music's trajectory. We feel the 'call' of those changes in affective valence, and 'respond' in some way. We feel, to bring another stream of affect theory into the conversation, a certain kind of emotional valence that might simply result in us continuing to do what we're doing because everything is feeling 'right'.

What follows from all this is that both Polak and London are correct according to the terms of their epistemological vantage points. Having studied extensively in Mali and being himself a high-level jembe practitioner, Polak is considerably closer to the ground than his research collaborator, which I'll suggest shortly is important. But indeed, the very way he hedges about that "flexible" beat subclass suggests a productive opening of what we might call the taxonomical imperative onto other, phenomenologically valent experiential modes. If cognition theory reveals a perceptual limit to how we can identify the categories that performed gestures fall into, then it seems imperative to consider those gestures from different experiential perspectives, perhaps not as discrete events that work together to parse a given beat in a particular way, but as a composite gesture that moves through that beat, enacting a transference of energy from one beat onset to the next. This requires shifting attention away from discrete events (measured as ratios or IOIs) toward the relations that emerge and are engendered between them. Phenomenological philosopher Françoise Dastur describes this deliberate shift in perspective "let[ting] the constitutive operation appear" and, even more germanely, "let[ting] appear the temporal character of what is given to us" (2000, p. 180).

The jembe music Polak analyzes exhibits a fascinating productive aporia. On one hand, like so much cyclic drum–dance music from Africa and the African diaspora, a continuous sense of intense forward motion takes place throughout any given performance, one ramification of which is that the music very often speeds up, sometimes considerably, as it builds to a climax. On the other hand, in this particular case, that forward motion seems in every beat iteration to be slightly arrested as each of the three played beat subdivisions slows down slightly. The energetic displacement that results is a kind of halting gestural time at the micro-level that belies the longer-scale intensive trajectory of the music. The relationship between these two temporal trajectories matters; precisely how so remains the task of future research.

5 Experience Matters

> "Phenomenological explanation deals not only with given data, but with potentialities." (Dastur 2000, p. 184)

From the perspective of many Indigenous epistemologies, knowledge is active and dynamic, and objects and concepts are identified, in Indigenous North American scholar Shay Welch's terms, "according to their relationship to other things in an active process" (Welch 2019, p. 41). Further, "the things we know emerge from the ways in which we participate as embodied beings" (p. 43), which, using the phenomenological language I've been orbiting around above, means (potentially) bracketing one's epistemological

preconceptions, immersing oneself in the affective flow of an ongoing context, conceiving of cognition and perception (or intentionality) as imaginative processes (see just below), and remaining open to what might result.

Welch describes a tendency among what she refers to as "those mired in Western post-positivistic scientific and philosophical ideology" (p. 75) to "perceive basic level conceptual categories as objective, self-evident descriptions of mental phenomena" (p. 74). She suggests instead a storytelling methodology that moves away from, for example, the raw empirical data of an object of experience toward an ever-richer engagement with what it is the object of experience is doing, both "in-itself" (to borrow Husserl's language) and for the experiencer. What Welsh hopes to shed is any effort to force data into pre-formed categorical boxes, which is precisely to foreclose the possibility that one might be able to experience differently. "[W]ithout the recognition of the possibility of multiple ways of being, there can be recognition of multiple ways of knowing" (p. 83). Storytelling, according to Welsh, is a method that potentially cuts across discursive and conceptual boundaries and, in doing so, makes possible the discovery of different ways of being through which new knowledge forms can begin to take shape. Beyond this, though—and far more important for what I have been staging in this chapter—is the possibility that different expressive media, namely the gestural medium of dance (or music!), can function as deeply communicative, even if non-narrative, storytelling modes. In short, Welsh aims to clarify "how dancing creates meaning" (p. 105). Here Welsh's conception aligns with the gestural orientation I have been staking out thus far. Welsh suggests that.

> gestures are embodied symbolic communication—a sort of 'oral motility', as [Shaun] Gallagher puts it—that are esssential to narrative praxis. Gestures are naturally and innately communicative quite independently of verbal language…. (p. 105; internal quote from Gallagher 2006, p. 107)

From a more general engagement with the kinds of gestures that can be found co-occurring with spoken communication, Welsh soon pivots to how gestural language, in itself, can function as "a form of embodied and implicit knowing within and as storytelling" (p. 113). She is most interested in understanding how dance, as a gestural language that operates outside of verbal discourse, functions as a primary mode of meaning-sharing in Indigenous knowledge systems and beyond. The 'beyond' is important here, as Welsh is careful not to draw too fine a distinction between Indigenous knowledge systems and whatever we might characterize as their oppositional twin (see pp. 118–119). Dance, according to Welsh, has an immediacy that verbal language cannot reach, which operates before or below the level at which language is able to engage:

> The kinetic bodily logos of thinking in movement are another way of conceiving of the preverbal or nonverbal nature of movement as procedural meaning-making and communicative action. In fact … while verbal prose may frequently be ambiguous … embodied dynamics are precise. This is because verbal language is not and does not constitute experience. Therefore, attempts to verbalize experiences obscure the fine qualitative and affective constituents of experiences that make them so rich and unique to the individual. (p. 120)

I would add that "precise" here should be read in exactly the proto-geometric sense that so attracted Husserl, Derrida, Serres, and Deleuze and Guattari, as described in Sect. 2 above.

Beyond its active, dynamic, embodied, gestural nature, Welch suggests that knowledge and its production are communal (p. 32) and relational, and therefore ethical (p. 33). This perspective flows through a great deal of global Indigenous epistemology, and is a hallmark of what has recently become known as Africana phenomenology (Henry 2005). An early exemplar of this latter philosophical perspective is the theoretical, artistic, and practical work of Léopold Sédar Senghor, especially his notion of knowledge as communally produced, which he frames as a particularly African modality but which we can think of in more generalized affective terms as well. Senghor's "law of participation" is as well-known as it is controversial, and Senghor spent a great deal of effort in his later writings correcting what he saw as egregious misinterpretations of perhaps his most oft-cited statement, "Classical European [or sometimes 'Hellenic'] reason is analytical and makes use of the object. African reason is intuitive and participates in the object" (Senghor 1965, p. 34). The notion of participating in an object of experience is, of course, a profoundly phenomenological claim. But beyond participating "in the object," which among other things is, crucially, an assumption that the object possesses a kind of relational agency (Bennett 2010), knowledge for Senghor is produced within a community of practice; that is, it is distributed, liminal, and creative. For Senghor, this is a *rhythmic* and *cyclical* process, and additionally a *lyrical* one. "The call is not the simple reproduction of the cry of the Other; it is a call of complementarity, a *song*: a call of harmony to the harmony of union that enriches by increasing *being*" (Senghor 1965, p. 63). Welch similarly foregrounds the relational nexus: "[o]ur contextualized positions are a field of possibilities and opportunities, and as we think and act, we create and structure meaning by creating connections" (Welch 2019, p. 57).

Time, then, is for Senghor both rhythmic and lyrical: two musical metaphors that undergird his entire relational metaphysics. It is an iterative ordering force (hence the significance of cycles in so much African music) that produces existence. But the kind of force it is sensible rather than material:

> This ordering force … is rhythm. It is the most sensible and least material thing. It is the vital element par excellence. It is the primary condition for, and sign of, art, as respiration is of life—respiration that rushes or slows, becomes regular or spasmodic, depending on the being's tension, the degree or quality of the emotion…. It is not a symmetry that engenders monotony; rhythm is alive, it is free. (Senghor 2003, p. 296)

Here the proto-geometric, gestural nature of musical rhythm becomes especially apparent and profoundly meaningful. Likewise, the significance of attending apodictically to rhythm's protogeometricity, to do the work to learn to experience a gestural-sonorous object on its own productive terms, as sensible (gestural, expressive) rather than material (durational, taxonomical). Again the jembe example from above illustrates this point vividly: the argument about beat-subclass types and concomitant appeals to lowest perceptual limits misses the point of what it is the repeating (or "respiring") musical gestures are producing through their ongoing iteration.

What all this amounts to is an appeal to expand our conception of what it means to experience and how to do so, and to turn to the concept of gestural design (and, in music, to gestural-sonorous-objects operating in proto-geometric space-times) as a productive exploratory timespace. Experience is an iterative process, the operations of which are perspectival, positioned, and relational. These three themes are grounded on the fact, crucial to phenomenological philosophy, that we have (or are) bodies from which we experience and that our experiencing bodies get extended through different kinds of affordance-relations, including tools, the development of layers of awarenesses through repetitions of familiar actions, cultural emplacements, and more. Sara Ahmed is interested in "how bodies are directed in some ways and not others" (2006, p. 27); that is, how through those foldings of experiences and emplacements our subjectivities are constructed such that some next actions are viable and others less so. There are important connections in Ahmed's account to Frantz Fanon's (2008) theorization of how bodily orientations and capacities are foreclosed by ideological, historical, hegemonic, and other oppressive forces. "Orientations involve directions toward objects that affect what we do" (Ahmed 2006, p. 28), which is not necessarily a conscious process:

> We move toward and away from objects depending on how we are moved by them…. Turning toward an object turns 'me' in this way or that, even if that 'turn' does not involve a conscious act of interpretation or judgment. (p. 28)

In other words, the experience-in-motion is what does the "turning," and our orientations from this perspective are pre-cognitive in the sense I have described above. Rather than actions performed *by* subjects that pre-exist them, we are always already "in" those actions.

In ordinary modes of moving about and experiencing, this iterative process "de-distances" (Heidegger 1996, p. 104) certain aspects of the world, making them familiar and "available." Certain aspects of the world become, in some way, known to us: they become part of the foreground figuration of the world, the natural way we come to expect the world to be. But, as Ahmed makes clear, "[t]he figure 'figures' insofar as the background both is and is not in view. We single out this object only by pushing other objects to the edges or 'fringes' of vision" (2006, p. 37). In other words, the very practice of de-distancing inevitably engenders new distances by pushing other objects or perspectives or attitudes out of one's understanding. This is a crucial point to keep in mind when appealing to any empirical account of perceptual experience: what is left out when a particular framework is set in place?

Ahmed's overt project is to *queer* phenomenology (although she makes a convincing argument that phenomenology has always been queer in the way it disrupts "straight" modes of relational perception). What makes Ahmed's phenomenology queer is a concerted effort to "dis-identify" (Muñoz 1999) with received perceptual frameworks, to orient and re-orient ourselves such that we are able to resist the kinds of nearnesses that foreclose possibilities and potentials. Ahmed suggests that

> [w]hat is reachable is determined precisely by orientations that we have already taken…. The surfaces of bodies are shaped by what is reachable. Indeed, the history of bodies can be rewritten as the history of the reachable. Orientations are about

> the direction we take that puts some things and not others in our reach. (Ahmed 2006, p. 55–56)

To dis-identify with this form of orientational foreclosure is, first of all, a radical political stance. It is to identify and resist the force of ideology and to insist that there are other modes of being and doing that can be animated by new orientational enactments.

What, then, has all this to do with gestural time?

First of all, gestural time can be counterposed with measured time in the particular sense that it grounds the latter: first there was gesture, as a gloss on what Senghor refers to as a "humid and vibratory" *logos* that has been covered over by "the analytic turn of thought" or the "*ratio*" (Diagne 2019, p. 25; the temptation to read Polak's durational ratios as a contrafact to Senghor's fecund ontology is strong). As Souleymane Bachir Diagne writes of Senghor's signal theoretical contribution, this amounts to an "illumination, beneath the analytic intelligence—the faculty that understands by analyzing and separating parts external to each other (*partes extra partes*)—of the faculty of vital knowledge, which in a single immediate and instantaneous cognitive gesture can comprehend a composition that is living, not mechanical, and therefore cannot be decomposed" (p. 23–24). Not short–medium–long (nor any other categorical determination), but a composite decelerating gesture that does affective work within its contextual trajectory. Here, to turn back to a discursive strategy we encountered in Depraz, Varela, and Vermersch's (2003) work at the beginning of this chapter, the act of phenomenological engagement is described in gestural terms. If we follow Husserl's project through which we strive to make experience increasingly apodictic with that which is experienced, then the more gestural we can make cognition, as well as (or via) phenomenology's primary methodological tools (the *epoché* as a "gesture of suspension," the "gesture of reduction," and so on as described above), the more closely we may be able to map the essential nature of the gestural-sonorous object. From a musical perspective, this means practicing hearing gesturally in order to apodictically map the gestural design of the music we are experiencing.

Second is the way in which a turn to gesture necessitates a rethinking of what empirical measurement can reveal that is meaningful about music. The argument against a gestural-phenomenological method is that we should be attending to music-temporal phenomena that are given to perception, hence the argument by London and many others for various kinds of perceptual thresholds that limit what we ought to be able to say about minute microtiming measurements. But the fact that gestural qualities may not be immediately given to perception is precisely the point: as Martin Heidegger insists, "just because the phenomena are proximally and for the most part *not* given, there is need for phenomenology" (Heidegger 1962, p. 60). Phenomenology is the study of the structure of experience, but it is also, equally, a practice of expanding or otherwise transforming the nature and scope of what is experienceable. Phenomenology is, essentially, necessarily creative. So, again: what new listening modalities are afforded by adopting a gesture-orienting listening posture, and what new details might be hearable by doing so?

Third, lastly, my turn to queer, Indigenous, and decolonial phenomenology in the last part of the chapter, and my reading of them as extensions (rather than rejections) of Husserl's foundational phenomenological project, amounts to an appeal for phenomenological researchers of all stripes to deeply engage what I'll hesitatingly gloss as

the existential stream of phenomenological theory and practice. What does this mean? It means to take seriously the ways in which social, cultural, and historical contexts affect how we are able to perceive the world. How the world has been and continues to be given shape by forces outside us. Beyond this, it means to activate and vigorously practice ways of contesting what decolonial feminist theorist Françoise Vergès calls "epistemicide": to join an ongoing struggle against "a system that has dismissed scientific knowledge, aesthetics, and entire categories of human beings as non-existent" (Vergès 2021, p. 13). Decolonial phenomenology has much to offer both of these imperatives, e.g., the drive expressed by Frantz Fanon in the opening pages of *Black Skin, White Mask*: "What I want to do is help the Black man to free himself of the arsenal of complexes that has been developed by the colonial environment" (Fanon 2008, p. 19). Understanding the nature of music's gestural processes is, to be fair, many orders of magnitude less urgent than liberating human beings from oppression. But to give the final word to Senghor, art is one of the most potent expressions of the vital force that he understands to flow through all relational human connections. As Diagne phrases it, "[i]t is in art that we can find a premonition of what it is we must become" (2019, p. 49); this requires "the capacity to 'produce only in freedom'" (Senghor 1964a, b).

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