



# 8. Reflection in communicative jazz action

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**Abstract** This chapter aims to deepen Donald Schön’s insight about jazz playing as an example of what he calls “reflection-in-action” (RiA) by situating this notion within the enactive view of humans as linguistic bodies. Our main claim is that the knowledge or skills displayed by expert jazz musicians must be understood as aural and communicative in nature. After presenting the notions of RiA and linguistic bodies, we develop our view through a critical discussion of four statements from Schön’s passage on jazz musicianship, before wrapping up and clarifying the position we are advocating. This way, we suggest a revised version of Schön’s concept, which we call “reflection in communicative jazz action.”

**Keywords** jazz improvisation | reflection-in-action | enactivism | linguistic bodies | aural-musical communication

## 1. JAZZ IS EAR MUSIC

What does it imply to know something in jazz music? While contemporary jazz is a largely heterogeneous phenomenon, too diverse to be captured in a single definition, jazz musicians all over the globe seem to agree at least on one thing: Aural capacities are crucial.<sup>1</sup> Brilliant technical skills or extraordinary sound matter little unless the player knows how to improvise fluently by ear, that is, by *hearing* how the music unfolds in delicate communicative negotiations – alone or in bands.

With aural jazz knowledge as a point of reference, this chapter will suggest a concept of reflection in music that we hope can do justice to the musicians’ practice. We call it *reflection in communicative jazz action*. Our framework is the enactive and embodied view that is popular within contemporary studies on musical

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1 Paul Franklin Berliner, *Thinking in Jazz* (Chicago: University of Chicago Press, 1994); Ingrid Monson, *Saying Something: Jazz Improvisation and Interaction* (Chicago: University of Chicago Press, 1996); Mattias Solli, Erling Aksdal, and John-Pål Inderberg, “Learning the Jazz Language by Aural Imitation: A Usage-Based Communicative Jazz Theory (Part 1),” *Journal of Aesthetic Education* 55, no. 4 (2021); Derek Bailey, *Improvisation: Its Nature and Practice in Music* (Ashbourne: Da Capo Press, 1993).

behavior.<sup>2</sup> However, *unlike* many enactivists,<sup>3</sup> we will focus on enaction understood as *communicative aural behavior*. In pursuing this aim, we use resources offered by the recent “linguistic turn” in enactive theory, represented mainly by the publication of Di Paolo and co-writers’ *Linguistic Bodies*.<sup>4</sup> Providing a view of language as a genuinely *embodied* phenomenon defined by open-ended norms for communicative and participatory practices, we see the idea of linguistic bodies as well-suited for illuminating the aural orientation of jazz musicians.

We will begin with a detailed reading of one particular passage in Donald Schön’s much-cited book, *The Reflective Practitioner*.<sup>5</sup> Schön is one of the pioneers in the epistemology of practical knowledge. While jazz musicianship is not his primary target, what he has to say about the subject matter has far-reaching implications. As pioneers sometimes do, Schön has uncovered a phenomenon rife with ambiguity. This ambiguity is a key driving force for this chapter.

Schön offers insightful perspectives on jazz musicians’ aural knowledge. Musicians do not have to put into words what they know. “[W]e need not suppose that they reflect-in-action in the medium of words.”<sup>6</sup> The musicians can just *play*, mutually fulfilling their ideas in collective improvisation. Schön coined the phrase *reflection-in-action* (RiA), highlighting the intersubjective and aural-communicative aspect of the musicians’ reflective competence: “Listening to one another and to themselves, they feel where the music is going and adjust their playing accordingly.”<sup>7</sup> This observation taps right into the enactive framework. And in that regard, Schön gives us the spark to develop our version of the reflection-in-action concept, emphasizing the enactive and communicative aspects of the jazz

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- 2 Mattias Solli and Thomas Netland, “Enacting a Jazz Beat: Temporality in Sonic Environment and Symbolic Communication,” *British Journal of Aesthetics* 61, no. 4 (2021), <https://doi.org/10.1093/aesthj/ayab048>; Mattias Solli, “Musical Affordances and the Transformation Into Structure: How Gadamer can Complement Enactivist Perspectives on Music,” *British Journal of Aesthetics* 62, no. 3 (2022), <https://doi.org/10.1093/aesthj/ayac002>; Steve Torrance and Frank Schuman, “The Spur of the Moment: What Jazz Improvisation Tells Cognitive Science,” *AI & Society* 34, no. 2 (2019), <https://doi.org/10.1007/s00146-018-0838-4>; Simon Höfding, *A Phenomenology of Musical Absorption* (Cham: Palgrave, 2018); Micheline Lesaffre et al., “Participatory Sense-Making in Joint Musical Practice,” in *The Routledge Companion to Embodied Music Interaction*, ed. Micheline Lesaffre, Pieter-Jan Maes, and Marc Leman (New York: Routledge, 2019).
  - 3 Torrance and Schuman, “The Spur of the Moment: What Jazz Improvisation Tells Cognitive Science”; M. Reybrouck, *Musical Sense-Making: Enaction, Experience, and Computation* (London: Routledge, 2020).
  - 4 Ezequiel A Di Paolo, Elena Clare Cuffari, and Hanne De Jaegher, *Linguistic Bodies: The Continuity between Life and Language* (Cambridge, Massachusetts: MIT Press, 2018).
  - 5 Donald A. Schön, *The Reflective Practitioner: How Professionals Think in Action* (New York: Taylor & Francis, 2017).
  - 6 Schön, *The Reflective Practitioner: How Professionals Think in Action*, 56.
  - 7 Schön, *The Reflective Practitioner: How Professionals Think in Action*, 55.

musicians' competence. However, when Schön tries to elaborate on what this intersubjective and aural-communicative reflection implies, he invokes a series of ambiguous terms and perspectives that, if interpreted in the wrong way, can stand in the way of a proper understanding of his idea, at least from the vantage point of the enactive-communicative ear. In other words, while Schön's text evokes intriguing perspectives, it simultaneously invites potentially problematic interpretations that threaten to undermine them. As we will see, some of the problems are up front, while others are more subtle and are revealed by connecting them to tendencies in contemporary literature.

The goal of exploring the ambiguities of Schön's text is to unpack the potential of his pioneer observations, thus propelling the epistemology of jazz musicianship further. But why does it matter? Why bother with one particular passage in a book? Indeed, oral and aural jazz musicianship is a fully fledged knowledge system in its own right, unfolding perfectly and independently of theoreticians' approaches and conceptual models. However, apart from the no small fact that the aural practice field feeds perplexing perspectives into philosophy that are worth pursuing for their own sake, theoretical modeling of practices *does* play a role in music pedagogy. It matters whether or not the oral and aural-communicative ethos of professional jazz musicianship is allowed to form the basis of learning and teaching practice. And to the extent that pedagogical practice is informed by theory, not only is Schön's book rendered a classic within the educational literature, but his brief passage on jazz musicianship also inadvertently lends itself to a frequently repeated set of common (mis)construals about jazz musicianship. We comment on a much broader theoretical field by working through the ambiguities in Schön's statements, aiming to give them a philosophical clarification that can indirectly impact on actual music-making.<sup>8</sup>

Section 2 pursues general suggestions in Schön's description of jazz improvisation by situating his conception of reflection-in-action in recent enactivists' perspectives on the linguistic body. Section 3 turns to the aforementioned passage in Schön's book and tries to unpack its many positive and negative implications. By unpacking and discussing these statements one by one, rejecting the problematic readings to which they lend themselves, and clarifying the extent to which they are accurate, we hope to contribute towards the development of a richer and more solid understanding of jazz playing as reflection-in-action. Section 4 finally

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8 We believe this justifies our focusing on one particular passage from Schön rather than evoking his broader theoretical framework. For a close reading of Schön's theory, see B. Molander, *The Practice of Knowing and Knowing in Practices*, ed. Bengt Molander (Frankfurt am Main: Peter Lang Edition, 2015), Chapter 6: The reflective practitioner.

suggests a conception of the reflection in communicative jazz action as participatory, open-ended, and aural sense-making. Throughout the reading and reviewing process, we hope to gradually transform Schön's observations and statements into an adequate conception of reflection in communicative jazz action.

## 2. REFLECTION-IN-ACTION AS AN ACT OF THE LINGUISTIC BODY

Before we dig into the potentially problematic aspects of Schön's passage, let's begin by outlining the main agreement between Schön's position and the view we are advocating. Above all, Schön's emphasis on *listening* as the key to jazz musicians' reflection sits well with contemporary jazz musicians and the legacy unfolding in the music. Jazz emerged in an oral and aural tradition, the African American.<sup>9</sup> Centuries before American slavery and the diaspora, African musicians from multiple distinct cultures developed fine-grained systems for aural communication and transmission of knowledge. Without reliance on scripts or other visual tokens for preservation, they developed and handed down vastly complex rhythmic and tonal forms from one generation to the next. The music was incorporated into everyday life including births and funerals, dealings with friends and foes, and rituals and celebrations.

When, on the American continent, African musical knowledge took up the Western tonal system and developed what eventually became known as jazz, it incorporated the musical syntax of major and minor tonality into the aural knowledge. And when the gramophone eventually was invented, and the record industry started to sell records to the African American people, this new technology fitted right into the aural community. People gathered in living rooms for collective listening, singing, and clapping along.<sup>10</sup> Aspiring jazz musicians, such as the young Louis Armstrong and Charlie Parker, started learning music directly from their heroes by imitating records, gradually developing their own styles within the aural-musical languages. Finally, when jazz grew into an art form and became a global phenomenon exploring rhythm and tonality on various axes, something in this profound aural knowledge remained. Something in the ethos of "jazz is

9 Ben Sidran, *Black Talk; How the Music of Black America Created a Radical Alternative to the Values of Western Literary Tradition* (New York: Payback Press, 1981); LeRoi Jones, *Blues People: Negro Music in White America* (New York: Harper Perennial, 2002).

10 Mellonee V. Burnim and Portia K. Maultsby, eds., *African American Music: An Introduction* (New York: Routledge, 2014).

ear music”<sup>11</sup> has survived, although jazz education also has grown into a massive industry of books and other written material.<sup>12</sup>

Against this background, Schön’s observation of jazz musicianship as a capacity for intersubjective and aural-communicative reflection-in-action makes perfect sense: the musicians *listen* to each other and unfold the music together. Moreover, when Schön speaks of RiA, he anticipates the movement in contemporary cognitive science that explores the enactive *linguistic* body.<sup>13</sup> To understand what this idea entails, a bit of background is needed.

Launched with the publication of *The Embodied Mind*,<sup>14</sup> the enactive approach to cognitive science is – as the title makes clear – defined by the thesis that the mind is essentially *embodied*. With this thesis, enactivists aim to reject the still popular model of the human mind as an abstract intellect locked inside the skull and operating on representations of the external world. As enactivists see it, the mind is instead a whole-body phenomenon, realized in and through our practical bodily engagements with our surroundings.

This “embodied turn” yielded valuable new insights in a wide range of fields, including work on musical perception and performance. There has, however, been a worry that the validity of the enactive theory is limited in scope to only the more “basic” aspects of the mind, such as the practice-oriented “ground-level” of perception, and that it will struggle to account for more “sophisticated” aspects like language and symbolic thought, which seem to lend themselves more easily to the traditional intellectualist model. *Linguistic Bodies*, which construes the human body as – precisely – a *living body*, is enactivists’ attempt to ease this worry. Their notion of linguistic bodies is rooted in the already established enactivist view of the mind as a process of self-individuation, exemplified in its most basic form in the *autopoietic* organization by which living organisms maintain their own existence through metabolic exchanges with the environment and generalizable – under the heading of “adaptive autonomy” – to forms of identity-generation beyond the mere organic

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11 Berliner, *Thinking in Jazz*.

12 Eitan Wilf, *School for Cool: The Academic Jazz Program and the Paradox of Institutionalized Creativity* (Chicago: University of Chicago Press, 2014); Kenneth E. Prouty, “The History of Jazz Education: A Critical Reassessment,” *Journal of Historical Research in Music Education* 26, no. 2 (2005).

13 Di Paolo, Cuffari, and De Jaegher, *Linguistic Bodies: The Continuity between Life and Language*; Maurice Merleau-Ponty, *The Structure of Behavior* (Pittsburgh: Duquesne University Press, 2011); Ståle Finke, Thomas Netland, and Mattias Solli, “Art and Linguistic Bodies: A Transformative View,” *Phenomenology and the Cognitive Sciences* (in press).

14 Francisco Varela, Evan Thompson, and Eleanor Rosch, *The Embodied Mind; Cognitive Science and Human Experience* (Cambridge, MA: MIT Press, 1991).

level.<sup>15</sup> In short, the idea is that this form of self-individuation instantiates an activity of *sense-making* – the simultaneous, interdependent, and interactional constitution of an agent and its meaningful environment, defined as such by virtue of norms distinguishing factors that are significant for the agent’s viability and ongoing projects. As *linguistic* bodies, we are characterized by a special form of self-individuation, constituted by activities of *participatory sense-making*<sup>16</sup> with others that give rise to intersubjectively shared domains of meaning and practices of communication. “With linguistic bodies,” as Di Paolo et al. say, “a new form of autonomy emerges at the community level, that of patterns of utterances, expressions, styles, and open-ended norms.”<sup>17</sup> Language is a structure that both guides and is constituted – and continuously evolved – by the interactions of linguistic bodies (which, in turn, are defined as such through those interactions).

We propose that Schön’s RiA is best understood within this framework of linguistic bodies as a reflection in *communicative* action. Thus conceived, music-making is a form of linguistic sense-making, a communicative interaction of linguistic bodies that, through exchanges of meaningful musical utterances, explores and develops a shared musical *idea* that, in turn, guides the musicians’ ongoing interaction. As linguistic bodies, every aspect of our lives and behavior is either already or at least potentially imbued with an intersubjective sense that can be taken up, responded to, and expressed by other linguistic human subjects. Musical utterances are no exception: they are never mere sounds but are expressive of a *sense* that summons up a field of significances rooted in our shared human situation, laying the ground for further expression. On this view, to become an expert musician is to learn the language of music; it is to learn to *understand* musical utterances in the sense of learning how to orient oneself in landscapes of musical significance, responding appropriately to the utterances of co-players, and having a grasp of the overall direction of one’s participatory expressive achievement.

Three points should be underscored here. First, seeing language as an essentially interactional phenomenon in this way means that the sense of linguistic – and hence musical – utterances is primordially realized *in* the contextually embedded utterances themselves and not in some prior and privately enclosed intentions of individuals. In other words, one does not know exactly what one is saying (playing)

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15 Di Paolo, Cuffari, and De Jaegher, *Linguistic Bodies: The Continuity between Life and Language*; Evan Thompson, *Mind in Life* (Cambridge, MA: Belknap Press of Harvard University, 2007).

16 Hanne De Jaegher and Ezequiel Di Paolo, “Participatory Sense-Making,” *Phenomenology and the Cognitive Sciences* 6, no. 4 (2007).

17 Di Paolo, Cuffari, and De Jaegher, *Linguistic Bodies: The Continuity between Life and Language*, 197.

before it is actually *said* (played) and responded to in the ongoing communicative interaction.<sup>18</sup> In this way, linguistic interaction has the potential of being *reflection-in-action*, exploring ideas by letting them emerge and unfold through communicative practice. Second, when one is thus reflecting-in-action, the interaction itself takes on a form of normativity that both guides and is constituted by the participants' utterances. This normativity is *open-ended*: the goals of the interaction, and hence its criteria of success, are not entirely fixed and determined in advance but are continually modified and renewed through the flow of the communication. In exploring an idea through communication, interlocutors continually bring in novel points and perspectives and rephrase each other's utterances in ways that influence the future direction of their activity. Third, in such cases, participants relate to their own and each other's expressive behavior and the expressive whole they are co-creating, *as such* – i.e., the structure of their behavior becomes, as Merleau-Ponty puts it, “the proper theme of activity.”<sup>19</sup> Thus, we can see these forms of participation as holistic, self-reflecting structures, relating and responding to their own patterns of activity through their participants' contributions.

With his notion of RIA, Schön identifies a mode of competent behavior where musicians, in feeling where the music is going and adjusting their playing accordingly, are allowing their own behavior to become the proper theme of activity, the expression of a musical idea. In the next section, we'll unpack and discuss the more profound implications of reflection-in-action as it is manifested in the context of jazz music.

### 3. SCHÖN'S FOUR STATEMENTS: ANALYSIS AND DISCUSSION

In the previous section, we began exploring the positive contributions latent in Schön's description of jazz musicianship as a form of RiA. Schön opens a theoretical path for appreciating musicians' aural-communicative knowledge as a fully fledged reflective competence. However, in this section, we will explore the other side of the ambiguity mentioned above, pursuing how his elaboration of what RiA in jazz involves is in danger of undermining critical aspects of his own idea. We will explore the ambiguities of Schön's proposal by reviewing the relevant passage step by step, gradually evoking the latent philosophical themes.

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18 Similar points are developed by Johan Asplund; see Molander, *The Practice of Knowing and Knowing in Practices*, 142–145.

19 Merleau-Ponty, *The Structure of Behavior*, 103.

Let's begin by reading the passage in full:

When good jazz musicians improvise together, they [...] manifest a “feel for” their material and they make on-the-spot adjustments to the sounds they hear. Listening to one another and to themselves, they feel where the music is going and adjust their playing accordingly. They can do this, first of all, because their collective effort at musical invention makes use of a schema—a metric, melodic, and harmonic schema familiar to all the participants—which gives a predictable order of the piece. In addition, each of the musicians has at the ready a repertoire of musical figures which he can deliver at appropriate moments. Improvisation consists in varying, combining, and recombining a set of figures within a schema which bounds and gives coherence to the performance. As the musicians feel the direction of the music that is developing out of their interwoven contributions, they make new sense of it and adjust their performance to the new sense they have made. They are reflecting-in-action on the music they are collectively making and on their individual contributions to it, thinking what they are doing and, in the process, evolving their way of doing it.<sup>20</sup>

Undoubtedly, many of these observations fit clearly into the picture of RiA that we presented in the previous section together with the notion of linguistic bodies. Upon closer inspection, however, some of the statements can be seen to lend themselves too easily to interpretations that are incompatible with this picture. We have identified four such statements: A) that jazz musicians make adjustments to *sounds*, B) that their efforts aim at musical *invention* based on a *schema*, C) that this schema organizes a *repertoire of figures*, and D) that their RiA is a reflection on the music. In the next pages, we review these statements one by one.

### 3.1. Statement A: Jazz improvisers make adjustments to *sounds*

Statement A states that musicians make “on-the-spot adjustments to the sounds they hear.” This might not seem like a very controversial statement. Music is a sonorous phenomenon. More precisely, it is a sound-time phenomenon, as Reybrouck puts it,<sup>21</sup> a resounding and temporally organized art.<sup>22</sup> Focusing on *sound* in this

20 Schön, *The Reflective Practitioner: How Professionals Think in Action*, 55–56.

21 Mark Reybrouck, “Musical Sense-Making and the Concept of Affordance: An Ecossemiotic and Experiential Approach,” *Biosemiotics* 5, no. 3 (2012): 399.

22 Mark Reybrouck, “Experience as Cognition: Musical Sense-Making and the ‘in-Time/Outside-of-Time’ dichotomy,” *Interdisciplinary Studies in Musicology* 19 (2019).

context can, however, easily conceal the fact that the music itself *has sense* – i.e., musicians *make (or enact) musical sense* through the ways they respond to and develop their ongoing participatory expression. Schön comes close to this idea when he says, in the same passage, that the musicians “feel the *direction* of the music” and that they “make new sense of it.” However, these claims are still vague enough to allow for an interpretation that sees sound as distinct from and more primary than sense in the musicians’ interactions. Such interpretations need to be excluded if we are to understand music as reflection-in-action in the form of participatory sense-making by linguistic bodies.

We can see one aspect of the problem by considering that rhythmic and tonal aspects of the resounding music are symbolic forms.<sup>23</sup> It is generally accepted that rhythm is the primary organizational force in jazz and other music of African American or African origin.<sup>24</sup> While the music can *swing* or *groove* in many ways according to idiomatic differences, the fact that it *does* swing or groove is vital. As drummer Ralph Peterson puts it, rhythm is *the* musical logic: “[I]f you miss a note and the rhythm is logical, then the idea comes across ... whether you hit the note dead center or not. But if you miss time—because music is organized sound in time ... if you blow the time you’re more likely to do irreparable damage to the music.”<sup>25</sup> Unfolding in time, tonal gestalts form and dissolve according to their own syntaxes, be it in the African tonal polyphony<sup>26</sup> or the Western equal-tempered twelve-tone system.<sup>27</sup> In the latter, the music is organized by certain normative forces that push, pull, and generate the music from within, according to the

23 Mattias Solli, Erling Aksdal, and John-Pål Inderberg, “Learning the Jazz Language by Aural Imitation: A Usage-Based Communicative Jazz Theory (Part 2),” *Journal of Aesthetic Education* 56, no. 1 (2022); Finke, Netland, and Solli, “Art and Linguistic Bodies: A Transformative View”; Solli and Netland, “Enacting a Jazz Beat: Temporality in Sonic Environment and Symbolic Communication”; Roger Scruton, *The Aesthetics of Music* (Oxford: Clarendon Press, 1997); Susanne K. Langer, *Philosophy in a New Key: A Study in the Symbolism of Reason, Rite, and Art* (Cambridge, MA: Harvard University Press, 2009).

24 Tiger Roholt, *Groove: A Phenomenology of Rhythmic Nuance* (New York: Bloomsbury Publishing, 2014); Berliner, *Thinking in Jazz*; Monson, *Saying Something*; John Miller Chernoff, *African Rhythm and African Sensibility: Aesthetics and Social Action in African Musical Idioms* (Chicago: University of Chicago Press, 1979); “Interview with Dizzy Gillespie (1972),” 1972, <https://mikel-ongojazz.com/2019/07/23/interesting-interview-with-dizzy-gillespie/>; “Hal Galper Master Class – Rhythm and Syncopation,” 2010, <https://www.youtube.com/watch?v=a2XnB5G6oSc>.

25 Cited in Monson, *Saying Something*, 29.

26 Olly Wilson, “The Significance of the Relationship between Afro-American Music and West-African Music,” *The Black Perspective in Music* 2 (1974); Simha Arom, *African Polyphony and Polyrhythm: Musical Structure and Methodology* (Cambridge: Cambridge University Press, 1991).

27 Scruton, *The Aesthetics of Music*.

stringent and lawful perceptual norms set by the octave, the circle of fifths, and the diatonic and chromatic tone steps. The musician Erling Aksdal calls it *generative potentials*: The music unfolds and generates itself according to its own immanent and stringent order.<sup>28</sup>

Unfortunately, Schön leaves out these considerations. But we see why it would be a misunderstanding to approach music as *just* sound. The intimate organization of rhythmic and tonal orders makes the music prone to thick symbolic organization into generative potentials or ideational structures with a semi-autonomous organizational force. Add to this the fact, as Schön himself embraces elsewhere in the same passage, that music is an intersubjective and communicative phenomenon targeting the ear of the other. Music is always played *for* someone, even if nobody else listens apart from the musician herself. Music addresses itself to the human ear. Even the *muzac* streaming out of the elevator in a mall is produced to affect other human beings.<sup>29</sup> And this relational and communicative dimension holds a fortiori for professional jazz musicians, who are experts in using their idioms' rhythmic and tonal languages directed towards the ears of peer musicians.

Thus, Schön's ambiguous formulation of musical *sound* threatens to undermine his otherwise promising description of RiA. Let's move on to statement B before we say more about this.

### 3.2. Statement B: Invention and schemas

Statement B speaks about *invention*. Why? A likely reading is that Schön evokes the much-celebrated etymological meaning of the word *improvisation*: *in provisus*, that is, *not [im] foreseen [providere]*.<sup>30</sup> Thus conceived, Schön has actualized one of the most repeated factors about jazz musicians: they can create something *new* in the spur of the moment. And in many contexts, this is more than an observation of something that happens every once in a while. It is a *value* ascribed to this branch of the musical business.

One should be careful in buying this perspective. As far as we can see, the focus on invention in art is a Western idea, emerging in the modernist and romantic

28 The current conception of generative potentials in music is developed by Erling Aksdal through decades of teaching. For elaborate theoretical perspectives, see Solli, Aksdal, and Inderberg, "Learning the Jazz Language (Part 2)," 99–101; Solli and Netland, "Enacting a Jazz Beat: Temporality in Sonic Environment and Symbolic Communication."

29 Solli, "Musical Affordances and the Transformation into Structure."

30 Online Etymology Dictionary, "Improvisation," (2022). <https://www.etymonline.com/search?q=Improvisation>.

aesthetic tradition in the wake of Kant.<sup>31</sup> It is, however, not an idea dominating the West African music traditions that eventually transformed into jazz, where music tends to be considered a cyclic, e.g., non-linear and non-progressive, phenomenon.<sup>32</sup> While a survey among jazz musicians probably would give a mixed answer on whether innovation is a value worth pursuing, we should be aware that it is an extra-musical value stemming from a tradition distinct from the oral tradition where jazz ultimately emerged. We return to this point below, when we describe the open aural horizon of the music.

Immediately after Schön speaks about musical invention, he holds that the players “make use of a schema—a metric, melodic, and harmonic schema familiar to all the participants—which gives a predictable order of the piece.” This statement can be seen as a micro-expression of the ambiguity of the whole passage. Let’s unpack it by considering three ways in which a reader can interpret statement B.

First, one can interpret Schön’s *schema* as hinting toward the capacities of the linguistic body. As musico-linguistic bodies, the players possess a range of expressive skills and abilities for meaningful musical communication that is realized in and contributes to the participatory structure. Listen, for instance, to saxophonist Chris Potter’s solo version of the standard “All the things you are.”<sup>33</sup> Potter expresses a superb knowledge of the rhythm, tonal language, and temporal form, which can be viewed as deeply internalized body schema knowledge. The intrinsic temporal structures of the tune seem profoundly embedded in the flow of music. The music flows without reference to any external criteria, only its own teleological sense *being on its way to continuous audible emergence*. However, while we support this enactivist interpretation of Schön’s statement, two things argue against it. First, if this were the idea Schön was aiming at, it would have required an analysis of musical-linguistic behavior, which would probably have made him rethink his statement about musical reflection as an adjustment to *sounds*. Moreover, as we’ll see shortly, this enactive interpretation of “schema” seems to conflict with the approach suggested by statement C – the idea that the competent musician handles a *repertoire of figures*.

31 Immanuel Kant, *Critique of the Power of Judgment* (Cambridge: Cambridge University Press, 2000).

32 Thomas Brothers, “Solo and Cycle in African-American Jazz,” *Musical Quarterly* 78, no. 3 (1994); see also Paul Berliner, *The Soul of Mbira: Music and Traditions of the Shona People of Zimbabwe* (Chicago: University of Chicago Press, 1993) pp. 110–111, although this study is from Zimbabwe.

33 Chris Potter, “All the Things You Are,” in *Recorded solo session* (2010). <https://www.youtube.com/watch?v=QHYP18AJeZQ>; <https://www.youtube.com/watch?v=QHYP18AJeZQ>

The second way to interpret Schön's "schema" is to say that it evokes a subtle reference to literacy. That is, the "schema" *can* be interpreted as akin to a pre-written script varied almost endlessly during the performance. Whether or not Schön intended the reference, this interpretation would fit with a widespread conception of jazz improvisers as improvising *over* a tune, finding their pathways effortlessly through the harmonic progressions while keeping up with the beat set by the drummer. Thus conceived, Schön's musicians "make use of a schema" that exists outside them as they execute the potential pathways suggested by the script.<sup>34</sup> While this might be a good model for students who approach jazz through the so-called real books<sup>35</sup> or other written material, we should be cautious about accepting the figure. To the extent that jazz is kept alive as an oral and aural form of music, the reference to pre-written material twists the perspective away from the genuine openness of the musical play.<sup>36</sup>

The third possible interpretation of the "schema" is compatible with yet distinct from the previous one. Here, one can understand Schön's "schema" as a bodily schema learned through Dreyfus-like skill acquisition. As Herbert and Stuart Dreyfus proposed, learning a skill as an adult human will tend to progress through five different stages, beginning with the novice stage and ending with complete mastery of the skill at the level of expertise.<sup>37</sup> In this model, the novice will typically rely on explicit rules and conscious attention to distinctions relevant to the activity. As one's mastery progresses, one's body will gradually become so habituated to the activity that one, finally, at the level of expertise, can be wholly *absorbed* in the activity, no longer relying on any explicit awareness of rules, etc., while displaying a context-specific sensitivity beyond what it is possible to state in any explicit instructions. This Dreyfusian model is explicitly employed in studies on jazz improvisation associated with enactivism.<sup>38</sup> It also seems to fit Schön's picture. The musicians in his analysis seem to have reached the highest level of expert knowledge: Having incorporated rhythmic and melodic-harmonic patterns through practice, their body schemas are now able to master the jazz-playing

34 Bruce Ellis Benson, *The Improvisation of Musical Dialogue: A Phenomenology of Music* (Cambridge: Cambridge University Press, 2003).

35 Real-books are written collections of popular tunes in jazz, often referred to as *standards*.

36 A more productive to speak of the music as text would be to apply Gadamer's hermeneutic text concept; see Mattias Solli, "Tradisjon, Individualitet og Spontanitet. Gadamer og Jazz," in *Opplysningen av det Estetiske: Kunstfilosofi og Estetisk Praksis*, ed. Ståle Finke and Mattias Solli (Oslo: Universitetsforlaget, 2021).

37 Hubert L. Dreyfus and Stuart E. Dreyfus, *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer* (New York: Free Press, 1986).

38 Torrance and Schuman, "The Spur of the Moment: What Jazz Improvisation Tells Cognitive Science."

activity, producing novel inventions in response to situations disclosed by a fine-grained musical sensitivity.

While there certainly is *something* to the Dreyfusian model, we seem again to be faced with a neglect of the *communicative* and *meaningful* aspect of music. Without dismissing the importance of habituating one's body to the execution of certain specialized movements required to master one's instrument, we want to resist the idea that the schema employed by expert jazz musicians is composed of a set of learned bodily behaviors that their playing consists in repeating and, occasionally, modifying ever so slightly to form musical "inventions." We'll look closer at why this is problematic in the next subsection.

### 3.3. Statement C: Repertoire of figures

The likelihood of the second and third interpretations of statement B can be enhanced by statement C, wherein Schön states that "each of the musicians has at the ready a repertoire of musical figures which he can deliver at appropriate moments" and that "[i]mprovisation consists in varying, combining, and recombining" these figures. On the one hand, the word *repertoire* is a Wittgenstein-inspired technical term. Schön explains it thus in another passage of *The Reflective Practitioner*:

A practitioner's repertoire includes the whole of his experience insofar as it is accessible for him for understanding and action. When a practitioner makes sense of a situation he perceives to be unique, he *sees* it *as* something already present in his repertoire. To see *this* site as *that* one is not to subsume the first under a familiar category or rule. It is, rather, to see the unfamiliar, unique as both similar to and different from the familiar one, without at first being able to say similar or different with respect to what.<sup>39</sup>

Minus the ocular emphasis, this seems to sit well with our conception of the musicolinguistic body as one that possesses a range of expressive skills and abilities for meaningful musical communication. Due to their experience and auditory sensitivity, musicians can catch minute qualitative nuances in the music that *are* or *could* be played without necessarily acting everything out. Defining which nuance that should be performed in actual resounding music or not is unimportant. And the evaluations of the music are not about rule-following. What matters is *just* that the music continues to bounce off and unfold itself from moment to moment

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39 Schön, *The Reflective Practitioner: How Professionals Think in Action*, 138.

as the whole of the musicians' experiences becomes accessible, individually and collectively.

On the other hand, if we again zoom more closely into Schön's wording, we see him leaning towards another assumption prevalent in the improvisation literature, namely what Solli, Aksdal, and Inderberg have called *the building block approach* (BBA).<sup>40</sup> Nettl stated that improvising musicians handle "building blocks which tradition accumulates, and which musicians within the tradition make use of, choosing from among them, combining, recombining, and rearranging them."<sup>41</sup> Berliner shows that BBA has found its way into descriptions of the skill acquisition in question. "Many students begin acquiring an expansive collection of improvisational building blocks by extracting those shapes they perceive as discrete components from the larger solos they have already mastered and practicing them as independent figures."<sup>42</sup> Wilf describes learning music by ear, stating that "improvisation involves imitation insofar as it is a recombination of previously available building blocks created by other improvisators."<sup>43</sup> The philosopher Benson sees no trouble in the approach: "For improvisation is a sense of 'putting together.' One takes the basic rhythmic and chord structures of the genre in which one works and puts them together in different ways."<sup>44</sup>

As a way to comment on the BBA, we note how Schön's wording seems to go hand in hand with understanding the *schema* as an underlying script. The idea that an expressive form consists of building blocks likens the idea of language consisting of letters, words, or sentences that can be strung together into well-formed, meaningful utterances. The Dreyfusian model of expert skills as fully incorporated behavioral patterns can also be interpreted along the lines of the BBA. While we can imagine the novice standing in the practice room dealing with one musical figure at a time (be it a rhythmic, melodic, or harmonic pattern), we can also imagine how the expert, who has already extensively learnt the individual blocks, can be (or is) fluent in the combination and re-combination of the figures. Consequently, Schön states that musicians' "collective effort at musical invention makes use of a metric, melodic, and harmonic schema familiar to all the participants—which gives a predictable order of the piece." This predictability, Schön can be read as saying, is due to the repertoire of incorporated patterns. The schema, then, is created

40 Solli, Aksdal, and Inderberg, "Learning the Jazz Language (Part 2)," 118–20.

41 Bruno Nettl, "Thoughts on Improvisation: A Comparative Approach," *Musical Quarterly* 60 (1974): 13.

42 Berliner, *Thinking in Jazz*, 101.

43 Wilf, *School for Cool*, 134.

44 Benson, *The Improvisation of Musical Dialogue*, 136.

by incorporating a set of experiences of practicing “building block” behaviors. More precisely, the set of incorporated experiences *is* the schema.

But again, we should be cautious about accepting these approaches to jazz improvisation. Gadamer points out that the alphabet once represented a prodigious abstraction,<sup>45</sup> part of a cultural trend of concealing or “forgetting” language as a materialized, perceptual, and sense-making phenomenon.<sup>46</sup> And as far as we can see, one can say the same about the BBA: The idea that jazz music consists of building blocks is an abstraction that conceals the fact that musicians unfold musical sense together. It hides the fact that *perceptual sense cannot really be divided into parts*.<sup>47</sup> There are no *partes extra partes* in perceptual sense-making, only the unfolding of *wholes*. Perceptual sense unfolds as dialectic part-whole relationships.

The implicit association with written language that we find in both the BBA and the schema model is especially inapt the moment we also consider that jazz originated in and still preserves an oral and aural tradition. When children learn to speak their mother tongue, they do not do so by stringing together words or consciously focusing on their task. They do not usually learn words as separate muscular and sonorous figures to be practiced one at a time, fine-tuning the muscles in the mouth, lips, and lungs, gradually incorporating a repertoire of word behaviors that they can combine in various ways. Or at least, such a description of what happens is essentially incomplete and abstract since it neglects that what is primarily acquired is a power of *expression* and a capacity for navigating in a world of human significance. This is seen in the fact that children learn through *imitating* others and that, as Merleau-Ponty observes, what they primarily imitate is not the exact behavior of others but rather their *intentions* – i.e., the *sense* of their behavior. As he puts it, “To imitate is not to do what the other does, but to arrive at the same result.”<sup>48</sup>

Similarly, we can imagine the young Louis Armstrong and Charlie Parker hour after hour by their record players, trying to map out as exactly as possible what they heard, aiming to incorporate the musical language as *their* language and thus expand their musical-expressive powers. We move beyond the BBA by following Merleau-Ponty’s pointer: Imitating the music is *not* about imitating what the masters do and thus assembling a repertoire of physical movements *but about arriving at the same results the musicians heard on the record*. Learning jazz by aural imitation is about hearing the direction of the music as a perceptual sense and being able

45 Hans-Georg Gadamer, *Beginning of Philosophy* (New York: Bloomsbury Publishing, 2000), 14.

46 Hans-Georg Gadamer, *Truth and Method* (London: Continuum, 2004).

47 Maurice Merleau-Ponty, *Phenomenology of Perception* (London: Routledge, 2012).

48 Maurice Merleau-Ponty, *Child Psychology and Pedagogy: The Sorbonne Lectures 1949–1952* (Evanston: Northwestern University Press, 2010), 22.

to accomplish this musical sense either by one-to-one mapping or (eventually) *by variation*.<sup>49</sup> Just as learning a language is to learn that the same point can be made in using different words, and the same words can be used in making different points, the young musician must discover how exact imitation enables personal utterances within the same language and (as with Armstrong and Parker) transformations *from within the language*.

In the background of such learning processes, the whole world of communicative interaction evolves, from the first mother-child interaction to playing with peers and developing a relatively autonomous self. In short, the entire horizon of what Trevarthen and Malloch call *communicative musicality*<sup>50</sup> forms a background onto which the music in the foreground makes sense – or *begins* to make sense – for the novice. Add to this the picture of oral communities, where people grow up with no clear distinctions between everyday speech, singing, and music. Thus, it becomes even more apparent that jazz expertise cannot be adequately captured by the BBA and schema models. Instead, jazz mastery should be seen as fluency in a specific form of musical sense-making enabled by the initiation into musical languages.

### 3.4. Statement D: Reflection *on* music

Lastly, let us look at statement D, where Schön states that the musicians “are reflecting-in-action on the music they are collectively making and on their individual contributions to it.” On the surface, this description seems to pin-point an intuitive and non-intellectual mode of reflection. The music-making process does not have to go through explicit cognitive evaluations but can be carried out in the flow.

At the same time, Schön’s wording can also lend itself to an interpretation according to which there is a difference – a cognitivist distance – between the reflective activity and the actual unfolding of the music. Reflecting-*in*-action is a reflection *on* the music. While Schön’s wording might simply be a consequence of the rules of the English language (the word *reflect* requires the preposition *on*), it is crucial for an adequate account of RiA that such cognitivist interpretations are unambiguously excluded. RiA, that is, should not be considered an activity

49 Solli, Aksdal, and Inderberg, “Learning the Jazz Language (Part 2).”

50 Stephen Malloch and Colwyn Trevarthen, eds., *Communicative Musicality: Exploring the Basis of Human Companionship* (Oxford: Oxford University Press, 2009); Colwyn Trevarthen and Stephen Malloch, “The Intrinsic Beauty of Communicative Musicality from Birth,” *Anthropology and Beauty: From Aesthetics to Creativity* (2018).

*detached* from the actual medium, an activity that does not evolve *in* the music but at a certain distance from it.

While it is improbable that Schön intended this kind of cognitivist position, the possibility of such an interpretation is strengthened when statement D is seen in the light of the ambiguities of the preceding statements A–C. If one takes reflection in jazz to be an application of musical building blocks, it makes sense to believe that there is a mind standing over these blocks deciding, in split seconds, how to combine and recombine them.<sup>51</sup> And perhaps unsurprisingly, statement D, too, implicitly lends itself to the prejudice of the primacy of written language, here in the form of construing the mind as a detached, knowing, epistemological consciousness. According to Ong,<sup>52</sup> there is an intimate association between an intellectualist conception of the mind as a mind's eye that "sees" the structure of the cognitive action and the fact that knowledge formulated on a paper has authority within Western culture. The seemingly banal fact that the text is *visible* makes it stable as a medium of transfer, just as a solid object can be seen, touched, and explored with a character of self-sameness over time. Sight also presupposes a distance, "a laying out of surfaces," as Ong puts it,<sup>53</sup> which then functions perfectly as an analogy or symbol of a rational mind standing over its object, freely deciding what to engage in or reject. A perfect example of what Ong points to is Descartes's *oculi mentis* (mind's eye), which reflects upon its own rational content by directing consciousness towards the "clear and distinct perception of what I affirm to be the case."<sup>54</sup> This intellectualist idea is typical of Western literacy, according to Ong. The rational text is the perfect visual medium for its hypervisualist orientation.

Admittedly, reading all this into Schön's brief statement is to push things. But the perspective is worth considering since statement D, so construed, also is at odds with how aural musicians describe their playing as a way of *thinking* precisely *in* their musical media. It is no accident that Berliner's monumental portrait of an African American jazz community is called *Thinking in Jazz*.<sup>55</sup> As familiar with the rhythmic and tonal language as they are with their mother tongue, these musicians

51 An elaboration of this model of improvising cognition is suggested by musician, psychologist, and (in our classification) the BBA proponent Jeff Pressing, "Improvisation: Methods and Models," in *Generative Processes in Music: The Psychology of Performance, Improvisation, and Composition*, ed. John Sloboda (Oxford: Oxford University Press, 1988).

52 Walter Ong, *Interfaces of the Word: Studies in the Evolution of Consciousness and Culture* (Ithaca: Cornell University Press, 2013).

53 Ong, *Interfaces of the Word: Studies in the Evolution of Consciousness and Culture*, 122.

54 René Descartes, *Meditations on First Philosophy: With Selections from the Objections and Replies* (Oxford: Oxford University Press, 2008), 25.

55 *Thinking in Jazz*.

do not need a reflective mind operating outside its expressive medium. Similarly, Høffding has demonstrated how a group of expert musicians frequently becomes fully absorbed in the playing, thus engaging in the mutual dialectic activity without any intellectual stance “above” the activity itself.<sup>56</sup> Finally, recall from Section 2 how this, in a sense, also holds for our everyday linguistic communication: Just as we all, when we talk, do not need to reflect-in-action *on* the words we are going to use before saying it, but on the contrary, *say* the words as part of becoming aware of what we are trying to say. Analogously, fluent musicians become aware of what they’re trying to express musically by acting it out. The accomplishment in collective aural-communicative action *is* the thinking. Or as we now will put it in the final section: The achievement in collective aural-communicative action *is* the reflection in communicative action.

#### 4. REFLECTION IN COMMUNICATIVE ACTION IS PARTICIPATORY AND OPEN-ENDED SENSE-MAKING

In the previous section, we interpreted four of Schön’s statements about the RiA exercised by jazz musicians. As we have seen, Schön does an impressive job of revealing an ambiguous and complex phenomenon. At the same time, his analysis does not seem completely phenomenologically adequate, lending itself a bit too easily to problematic approaches and models left unexamined. Many of his statements also fit nicely into models suggested by Western literacy. From what we have seen, it is not difficult to understand how that could happen. Several other theories of jazz playing fall into the same trap. Western literacy is a fundamental cultural trait that permeates everything from analyses of perception to knowledge systems.<sup>57</sup> Nevertheless, it is essential to get rid of this model if we want to understand the oral and aural modes of knowing developed and preserved in the jazz tradition.

What, then, is the positive alternative? We have already indicated our preferred position in the previous sections. But we can now lay it out in more detail, launching off from an observation by Sidran. In contrast to the typical epistemic ideal

56 Høffding, *A Phenomenology*.

57 David Abram, *The Spell of the Sensuous; Perception and Language in a More-Than-Human World* (New York: Vintage Books/Random House Inc., 1996); Hans-Georg Gadamer, *Der Anfang Der Philosophie* (Stuttgart: Reclam, 1996); Eric A. Havelock, *Preface to Plato* (Cambridge, MA: Belknap Press of Harvard University, 1963); Walter Jackson Ong, *Orality and Literacy; the Technologizing of the Word* (London: Routledge, 2012); Walter Jackson Ong, *The Presence of the Word: Some Prolegomena for Cultural and Religious History* (Birmingham: Global Publications, Binghamton University, 2000).

developed in Western rationality, he explains, univocity and unambiguity were no ideals in the aural West African knowledge system that eventually merges into jazz.<sup>58</sup> It was considered vulgar and unintelligent to express something in a manner that could be understood in only *one* way. We must not misunderstand the point: *Hitting the right note at the right time to generate the open-ended ambiguity requires utmost exactness, precision, and competence.* Wynton Marsalis hits this point on behalf of jazz: “Jazz is not just, ‘Well, man, this is what I feel like playing.’ It’s a very structured thing that comes from tradition and requires a lot of thought and study.”<sup>59</sup> This is why jazz students need to be precise. Unless one prefers to venture into unsubstantial contact with the musical sense, the exact character of the music demands a precise correlate of imitative behavior.<sup>60</sup>

Our notion of reflection in communicative action sits well with Sidran’s emphasis on ambiguity, openness, and exactitude. For instance, when the rhythm is considered the main logic in music associated with jazz, the rhythms are usually not “closed” or “static” unfolding of sound but rhythmic gestalts that *swing or groove*, thus “bouncing” or “pushing” the music forward.<sup>61</sup> The swing beat is an excellent example. It can be rephrased in terms of the *continuous flow of syncopated rhythm*: When the beat starts swinging for real, it flows off as if it created itself from one moment to the next, one note anticipating the other, always keeping the music open to what comes next. The musician Cecil McBee compares the beat metaphorically with a wave: “The moment you pick up the instrument and put it into motion you’re supposed to *feel* [the beat], and then the other things kind of ride the wave.”<sup>62</sup> Analogously, when competent jazz musicians explore the major-minor tonality again and again, either in standard repertoire or in self-created tunes, they explore the infinity of this tonal language by keeping open the aural horizon of the language. The tonal gestalts enabled by the twelve-tone system, the major-minor tonality, and the tune are breached and kept open in ever new explorations. Thus conceived, jazz’s rhythmic and tonal logics *are* the fluctuating and never-resting ambiguity of continuous unfoldment.

This is the participatory creation of a musical sense by linguistic bodies. The musical sense – the expressive, sonorous-temporal unfolding of the musical performance as a whole – emerges as an autonomous structure in its own right. The structure guides the individual contributions to the whole, constituting them as

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58 Sidran, *Black Talk*.

59 Cited from Berliner, *Thinking in Jazz*, 63.

60 Solli, Aksdal, and Inderberg, “Learning the Jazz Language (Part 1).”

61 Roholt, *Groove*; Solli and Netland, “Enacting a Jazz Beat: Temporality in Sonic Environment and Symbolic Communication”; Galper, “Hal Galper Master Class – Rhythm and Syncopation.”

62 Cited from Monson, *Saying Something*, 28.

meaningful *parts* of the whole at the very moment they are played. And in turn, every new individual contribution modifies the whole, realizing a potential that a moment ago was only an indeterminate possibility of the performance's open horizon and opening new opportunities for its future unfolding. In this way, the musicians' reflective activity is a joint accomplishment embedded and realized *in* the development of the musical structure itself. At the same time, each musician clearly informs the whole in their own distinctive ways. That is, their musical utterances do not only contribute to the collective achievement but are simultaneously constituting and expressing their own individual identity as autonomous musico-linguistic bodies. The music unfolds through participatory discrepancy, as Keil would say.<sup>63</sup> The musical performance as a whole is a gestalt, and each individual's contribution to that gestalt embeds a unique positioning, a personal voice expressing an individual's perspective on a whole that, as a symbolic and linguistic structure, affords multiple perspectives to be present simultaneously.

This leads us back to the point on innovation made above. Even if something *new* appears in the musical flow from time to time, this newness is a result of openness, not (necessarily or primarily) something sought for its own sake. The continuous flow of open-ended musical wholes and the individual players' expressive identities allow new expressions to naturally emerge when expert jazz players are negotiating their own and the whole's identities within an open horizon of musical sense. As Di Paolo et al. note, "The mode of existence of linguistic bodies and communities entails a permanent opening to potentiality."<sup>64</sup> In our context, the musical language is an ever-unfinished structure, with each new situation giving rise to new possibilities for linguistic expression. As linguistic bodies fluent in the language of jazz, jazz players' participatory sense-making is an exploration of the potentialities inherent in their shared language. Thus, the music emerges as a dialectic whole, involving both the collective experiences and history inherent in the jazz language shared by all the players as well as the unique perspective and life history of each individual musician, making the musical sense of the whole an ambiguous structure oscillating between the old and the new and between collectivity and individuality.

We can grasp a central aspect of what is going on here with the help of Bengt Molander's contribution to this anthology. That is, the kind of knowledge displayed by expert jazz musicians playing together is a clear example of knowledge as a

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63 Term borrowed from Charles Keil, "Participatory Discrepancies and the Power of Music," *Cultural Anthropology* 2, no. 3 (1987).

64 Di Paolo, Cuffari, and De Jaeger, *Linguistic Bodies: The Continuity between Life and Language*, 325.

temporal pattern of intersubjective “knowing together” and, crucially, as “*knowing how to go on*.”<sup>65</sup> Through their participatory musical sense-making, the knowledge exploited by the musicians resides *in* the temporal unfolding of their shared musical medium and manifests as a way of dealing with the open-ended future of their cooperation by – precisely – knowing how to go on.

Further, we can say with Heidegger and Gadamer that, in successful performances, *the musical language speaks*. Gadamer would call it a radical form of play:<sup>66</sup> The prime subject of the music is not the musician or band “inventing” stuff, but the musical play itself, bouncing or grooving off, loosened from the pragmatic constraints that close off the play. Unlike football or tennis, jazz play is loosened from the normative endpoints associated with the competition.<sup>67</sup> Although competition might also occur in jazz, it is not the main point of the play to create a winner but to keep the music swinging, grooving, and open to spontaneous variations and modulations that suggest themselves from moment to moment.

And this is what we now – in the qualified sense emancipated from the inadequate models and approaches that can be read into Schön’s passage – mean with reflection in communicative jazz action. That’s the reflection: to be and to let others – peers and audiences, now and in the future, listening to records – be in the openness, in the open aural horizon.

#### 4.1. Tasks ahead

In this chapter, we have discussed and expanded on Schön’s notion of reflection-in-action in light of the enactive-phenomenological idea of jazz players as linguistic bodies engaged in a special form of participatory sense-making. Being largely sympathetic to the core of Schön’s notion, we identified ambiguities in his presentation of the reflection-in-action involved in jazz music that seems to conflict somewhat with the adequate interpretation of this core. In particular, we have shown how four of Schön’s statements seem to lend themselves to inadequate assumptions about jazz expertise that can also be found elsewhere in the literature. We have especially challenged the tacit presupposition that models all forms of knowledge on Western literacy’s abstract and schematic nature, emphasizing the significance of jazz as belonging to an oral and aural tradition. In the last section, we suggested how the enactive notions of linguistic bodies and participatory sense-making are able to make sense of the complexities of jazz music thus

65 See Chapter 1, in this volume.

66 Solli, “Tradisjon, Individualitet og Spontanitet. Gadamer og Jazz.”

67 Finke, Netland, and Solli, “Art and Linguistic Bodies: A Transformative View.”

conceived. Further research is needed to elucidate more of the productive forces of this oral co-creative reflection. Let this be the task for the next conversation.<sup>68</sup>

## BIBLIOGRAPHY

- Abram, David. *The Spell of the Sensuous; Perception and Language in a More-Than-Human World*. New York: Vintage Books/Random House Inc., 1996.
- Arom, Simha. *African Polyphony and Polyrhythm: Musical Structure and Methodology*. Cambridge: Cambridge University Press, 1991.
- Bailey, Derek. *Improvisation: Its Nature and Practice in Music*. Ashbourne: Da Capo Press, 1993.
- Benson, Bruce Ellis. *The Improvisation of Musical Dialogue; a Phenomenology of Music*. Cambridge: Cambridge University Press, 2003.
- Berliner, Paul. *The Soul of Mbira: Music and Traditions of the Shona People of Zimbabwe*. Chicago: University of Chicago Press, 1993.
- . *Thinking in Jazz*. Chicago: University of Chicago Press, 1994.
- Brothers, Thomas. “Solo and Cycle in African-American Jazz.” *Musical Quarterly* 78, no. 3 (1994): 479–509.
- Burnim, Mellonee V., and Portia K. Maultsby, eds. *African American Music: An Introduction*. New York: Routledge, 2014.
- Chernoff, John Miller. *African Rhythm and African Sensibility: Aesthetics and Social Action in African Musical Idioms*. Chicago: University of Chicago Press, 1979.
- De Jaegher, Hanne, and Ezequiel Di Paolo. “Participatory Sense-Making.” *Phenomenology and the Cognitive Sciences* 6, no. 4 (2007): 485–507.
- Descartes, René. *Meditations on First Philosophy: With Selections from the Objections and Replies*. Oxford: Oxford University Press, 2008.
- Di Paolo, Ezequiel A., Elena Clare Cuffari, and Hanne De Jaegher. *Linguistic Bodies: The Continuity between Life and Language*. Cambridge, Massachusetts: MIT Press, 2018.
- Dreyfus, Hubert L., and Stuart E. Dreyfus. *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer*. New York: Free Press, 1986.
- Finke, Ståle, Thomas Netland, and Mattias Solli. “Art and Linguistic Bodies: A Transformative View.” *Phenomenology and the Cognitive Sciences* (in press).
- Gadamer, Hans-Georg. *Der Anfang Der Philosophie*. Stuttgart: Reclam, 1996.
- . *Beginning of Philosophy*. New York: Bloomsbury Publishing, 2000.
- . *Truth and Method*. London: Continuum, 2004.
- “Hal Galper Master Class – Rhythm and Syncopation.” 2010, <https://www.youtube.com/watch?v=a2XnB5G6oSc>.
- Havelock, Eric A. *Preface to Plato*. Cambridge, MA: The Belknap Press of Harvard University, 1963.
- Høffding, Simon. *A Phenomenology of Musical Absorption*. Cham: Palgrave, 2018.

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- “Interview with Dizzy Gillespie (1972).” 1972, <https://mikelongojazz.com/2019/07/23/interesting-interview-with-dizzy-gillespie/>.
- Jones, LeRoi. *Blues People: Negro Music in White America*. New York: Harper Perennial, 2002.
- Kant, Immanuel. *Critique of the Power of Judgment*. Cambridge: Cambridge University Press, 2000.
- Keil, Charles. “Participatory Discrepancies and the Power of Music.” *Cultural Anthropology* 2, no. 3 (1987): 275–283.
- Langer, Susanne K. *Philosophy in a New Key: A Study in the Symbolism of Reason, Rite, and Art*. Cambridge, Massachusetts: Harvard University Press, 2009.
- Lesaffre, Micheline, Pieter-Jan Maes, Marc Leman, Andrea Schiavio, and Hanne De Jaegher. “Participatory Sense-Making in Joint Musical Practice.” In *The Routledge Companion to Embodied Music Interaction*, edited by Micheline Lesaffre, Pieter-Jan Maes and Marc Leman, 31–39. New York: Routledge, 2019.
- Malloch, Stephen, and Colwyn Trevarthen, eds. *Communicative Musicality: Exploring the Basis of Human Companionship*. Oxford: Oxford University Press, 2009.
- Merleau-Ponty, Maurice. *Child Psychology and Pedagogy: The Sorbonne Lectures 1949–1952*. Evanston: Northwestern University Press, 2010.
- . *Phenomenology of Perception*. London: Routledge, 2012.
- . *The Structure of Behavior*. Pittsburgh: Duquesne University Press, 2011.
- Molander, B. *The Practice of Knowing and Knowing in Practices*. Edited by Bengt Molander. Frankfurt am Main: Peter Lang Edition, 2015.
- Monson, Ingrid. *Saying Something: Jazz Improvisation and Interaction*. Chicago: University of Chicago Press, 1996.
- Nettl, Bruno. “Thoughts on Improvisation: A Comparative Approach.” *Musical Quarterly* 60 (1974): 1–19.
- Ong, Walter Jackson. *Interfaces of the Word: Studies in the Evolution of Consciousness and Culture*. Ithaca: Cornell University Press, 2013.
- . *Orality and Literacy; the Technologizing of the Word*. London: Routledge, 2012.
- . *The Presence of the Word: Some Prolegomena for Cultural and Religious History*. Birmingham: Global Publications, Binghamton University, 2000.
- Potter, Chris. “All the Things You Are.” In *Recorded solo session*, 2010. <https://www.youtube.com/watch?v=QHRYR18AJeZQ>.
- Pressing, Jeff. “Improvisation: Methods and Models.” In *Generative Processes in Music: The Psychology of Performance, Improvisation, and Composition*, edited by John Sloboda, 129–178. Oxford: Oxford University Press, 1988.
- Prouty, Kenneth E. “The History of Jazz Education: A Critical Reassessment.” *Journal of Historical Research in Music Education* 26, no. 2 (2005): 79–100.
- Reybrouck, M. *Musical Sense-Making: Enaction, Experience, and Computation*. (London: Routledge, 2020).
- Reybrouck, Mark. “Experience as Cognition: Musical Sense-Making and the ‘in-Time/Outside-of-Time’ dichotomy.” *Interdisciplinary Studies in Musicology* 19 (2019): 53–80.
- . “Musical Sense-Making and the Concept of Affordance: An Ecossemiotic and Experiential Approach.” *Biosemiotics* 5, no. 3 (2012): 391–409.

- Roholt, Tiger. *Groove: A Phenomenology of Rhythmic Nuance*. New York: Bloomsbury Publishing, 2014.
- Schön, Donald A. *The Reflective Practitioner: How Professionals Think in Action*. New York: Taylor & Francis, 2017.
- Scruton, Roger. *The Aesthetics of Music*. Oxford: Clarendon Press, 1997.
- Sidran, Ben. *Black Talk: How the Music of Black America Created a Radical Alternative to the Values of Western Literary Tradition*. New York: Payback Press, 1981.
- Solli, Mattias. “Musical Affordances and the Transformation Into Structure: How Gadamer can Complement Enactivist Perspectives on Music.” *British Journal of Aesthetics* 62, no. 3 (2022): 431–452. <https://doi.org/10.1093/aesthj/ayac002>.
- . “Tradisjon, Individualitet og Spontanitet. Gadamer og Jazz.” In *Oppløsningen av det Estetiske: Kunstfilosofi og Estetisk Praksis*, edited by Ståle Finke and Mattias Solli, 151–172. Oslo: Universitetsforlaget, 2021.
- Solli, Mattias, Erling Aksdal, and John-Pål Inderberg. “Learning the Jazz Language by Aural Imitation: A Usage-Based Communicative Jazz Theory (Part 1).” *Journal of Aesthetic Education* 55, no. 4 (2021): 82–122.
- . “Learning the Jazz Language by Aural Imitation: A Usage-Based Communicative Jazz Theory (Part 2).” *Journal of Aesthetic Education* 56, no. 1 (2022): 94–123.
- Solli, Mattias, and Thomas Netland. “Enacting a Jazz Beat: Temporality in Sonic Environment and Symbolic Communication.” *British Journal of Aesthetics* 61, no. 4 (2021): 485–504. <https://doi.org/10.1093/aesthj/ayab048>.
- Thompson, Evan. *Mind in Life*. Cambridge, MA: Belknap Press of Harvard University, 2007.
- Torrance, Steve, and Frank Schuman. “The Spur of the Moment: What Jazz Improvisation Tells Cognitive Science.” *AI & Society* 34, no. 2 (2019): 251–268. <https://doi.org/10.1007/s00146-018-0838-4>.
- Trevarthen, Colwyn, and Stephen Malloch. “The Intrinsic Beauty of Communicative Musicality from Birth.” In *Anthropology and Beauty: From Aesthetics to Creativity*, edited by Stephanie Bunn, 115–130. Oxford: Routledge, 2018.
- Varela, Francisco, Evan Thompson, and Eleanor Rosch. *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, MA: MIT Press, 1991.
- Wilf, Eitan. *School for Cool: The Academic Jazz Program and the Paradox of Institutionalized Creativity*. Chicago: The University of Chicago Press, 2014.
- Wilson, Olly. “The Significance of the Relationship between Afro-American Music and West-African Music.” *Black Perspective in Music* 2 (1974): 3–22.