

EMBODIED INTERACTION

**LANGUAGE AND BODY IN THE
MATERIAL WORLD**

Edited by

**Jürgen Streeck, Charles Goodwin,
and Curtis LeBaron**

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21 Musical Spaces

John B. Haviland

In this comparative look at several kinds of musical performance, I present various threads of an investigation in progress, on musical performances and pedagogy in the first instance, but also on “entertainments” in general, on mastery and expertise, and the interactive structuring of space. I concentrate first on how the spaces in which musicians play – the layout of the playing area, its physical characteristics and those of the instruments, and the bodies of the musicians themselves – structure and are structured by musical and para-musical interaction, including what might be called “social structure.” I then consider multiple techniques musicians in three different traditions use to coordinate their actions. Finally, I examine some of the semiotic resources – involving talk, non-speech sounds, both musical and otherwise, bodies, and associated physical objects – these musicians put to work for communicating musically, both in performance and in practice.

In the study of interaction, a central analytic focus has been how participants coordinate with one another to accomplish “joint actions” (Clark, 1992, 1996) that cannot be achieved by individuals alone, requiring instead several participants (if not other entities as well) acting conjointly (Hutchins, 1995). Conversational exchanges have this character, as do basketball games and tugs-of-war, riding on a see-saw, carrying a piano up a flight of stairs, getting an ocean liner out to sea, and performing a string quartet. In joint action, not only are the coordinated actions of multiple participants involved, but so too is the whole (whether considered as result or process) more than (in fact, qualitatively different from) the sum of its parts, usually in multiple ways, as any team player knows. The first violin part does not constitute the string quartet; a single kill is not a volleyball game; and a monologue is hardly a conversation. The appropriate coordination of different participants in joint action thus becomes a central condition for accomplishing some things in the first place, and interactive techniques for managing such coordination are integral to the activities, regardless of any individual skills that must be simultaneously employed. A gifted three-point shooter or a

virtuoso cellist can do nothing to win the game or play the quartet without knowing as well how to integrate her skills with other players or musicians.

Although social life is built out of joint actions, and although coordination is a familiar part of everyday experience, there are at least two important consequences of these facts that still seem insufficiently explored in an anthropology of action and communication, writ large, and in the anthropological study of language in particular. First, just as individual skills will never be enough to accomplish joint actions, individual knowledge or cultural competence is never a sufficient basis for social expertise. Specifically, in the case of language, “knowledge of language” taken as an individual’s mastery of grammar is a meager, perhaps even a minor component of what we might call true linguistic competence, which implies using language to accomplish social ends.

Second, and perhaps more consequential given the importance accorded to a proposed general-purpose “turn taking systematics” (Sacks, Schegloff, & Jefferson, 1974) in conversation, is the fact that the character of different joint actions can have determinative effects on the coordination required. Not only do different joint actions require different sorts of coordination, but the mechanisms for achieving it may be differentially constrained by the actions themselves. As is well known, turn taking in criminal court is different from that in a university seminar or a dinner conversation. Although one might still want to posit an unmarked turn-taking mechanism, or more generally what has been called an “interactional substrate” (Maynard & Marlaire, 1992; Maynard & Schaeffer, 2002; Schegloff, 2007), which takes on specialized forms for specialized activities, it is useful to examine the specific requirements for coordination (of which turn allocation is a single, particular instance) given by different activities. Moreover, coordination may rely on communicative modalities largely unexplored in linguistics or in the study of conversation – uses of the body, or of objects, or of the overall environment of the activity that the long-standing focus on speech might not lead us to consider. Given that music is at once highly communicative, inherently joint,

and by nature multimodal, musical interactions seem a useful counterpoint to talk.

My principal material is drawn from two musical "master classes" in a university setting, one involving a string quartet (Haviland, 2007) and the other a jazz combo.¹ I take a further comparative look at ritual music in a Mayan Indian community in southeastern Mexico (Haviland, 1967). There is a minor tradition in studies of interaction linking musical performance to spoken conversation (see Sudnow, 1978, 1979). The comparison is also evidently explicit among some musicologists, especially students of jazz. Berliner (1994) writes, "[o]ne metaphor likens group improvisation to a conversation that players carry on among themselves in the language of jazz" (p. 348), and his extensive interviews with jazz musicians include many explicit descriptions of improvisation as conversation. Sawyer (2006) is more explicit still: "[T]he most important aspects of musical creativity occur outside of the head of musicians: they occur in musical conversations and in interaction between musicians" (p. 239). Still, the specifics of musical coordination in group performance – a topic of some interest in music and performance theory, though often studied strictly from the point of view of the music itself – have received little attention from social scientists as an object of empirical study, despite Schütz's classic early remarks on the subject (Schütz, 1951).²

"Traditional" music, played in the modern Tzotzil-speaking community of Zinacantán, in Chiapas, Mexico, is descended from sixteenth-century Spanish choral ensembles. The situation in Zinacantán is "a striking though not unique instance of the oral transmission through about three centuries of originally written part-music" (Harrison & Harrison, 1968, p. 2). Zinacantec *vob* or "string music" is nowadays played exclusively to accompany ritual. Its practitioners are increasingly scarce specialists who, according to local understanding, acquire their musical skills neither by practice nor from instruction, but in a dream as a supernatural gift from ancestral deities. In the most common ensemble,

there are three instruments – violin, harp, and guitar – and there is a strict hierarchy between the musicians who play these instruments, from highest to lowest in the order given. The hierarchy has various expressions,³ but here the most important fact is this: The violinist "leads" the ensemble. Specifying exactly what "leading" means will be one of my first concerns.

For the most common rituals, there is a fixed cycle of five *sonetik* "songs" (or six, given that the first tune, *batz'ison* "true song," both begins and concludes each cycle), although neither the length of time devoted to playing each tune nor the exact accompanying lyrics seems to be predictable in advance, depending instead on a variety of extra-musical factors. Furthermore, although there are observable stylistic and individual differences in how each song or each instrumental part is played, the Zinacantec theory of the matter is that there is just one right way to play the tunes, and that either a person knows how to play them (in which case he⁴ is a *jvabajom* "musician" > *vob* "music") or not (in which case he is not). What differences there are between musicians are considered by most Zinacantecs to be matters of knowledge or mastery: how well one knows how to tune or play specific instruments, or make them "speak the songs well"; for how many different kinds of rituals one knows the proper music and songs (given that for specialized rituals there are also additional specialized tunes); how authoritative one is in matters both musical and extra-musical (given that a central virtue of a musician is his expertise in ritual detail), and so forth.

From my earliest experience as a fledgling anthropologist in 1966, I have been an apprentice *jvabajom* in Zinacantán trying to acquire fragments of such expertise. My first exhibits are drawn from a performance by a Zinacantec string trio playing at a ceremony to mark the first anniversary of the death of a senior Zinacantec man, who himself had had a distinguished career in the ritual hierarchy, and for whose funeral commemoration it was thus appropriate to have *vob* "music."

I have spent many years learning from Zinacantec musicians, and my observations about the musical tradition stem from this research. I explore two further kinds of musical performance, with material drawn from two videotaped "master classes." At the invitation of Prof. Leila Falk, of the Reed College Music Department, on February 6, 2003, I filmed a master class in which a young

³ "The violin player at a ceremony, though he may be a younger man than some of his fellow musicians, outranks the others with regard to such things as position at the table at ritual meals, position when praying before the altar, and drinking order. The violin player, too, is assumed to be the musician who knows best the music and the musical procedure. It is he who leads the music and who sets the other people singing. It is he who stops any particular stretch of playing. It is he who speaks for the musicians when they are addressed as a group, or are required to act as a group. Thus, in any event in which musicians, as a class, are assigned a definite place in the hierarchy of participants, it is the instrument ranking – not some other sort of ranking – which determines how musicians stand within that place" (Haviland, 1967).

⁴ Zinacantec stringed-instrument musicians are exclusively male.

¹ Some material presented here formed the basis for an oral presentation at the International Conference of the International Pragmatics Association, Riva del Garda, July 14, 2005, and a lecture at the Ecole des Hautes Etudes en Sciences Sociales, Paris, April 2, 2009. I am grateful to colleagues on those occasions, and particularly to written comments from Charles Goodwin, Alessandro Duranti, Alessandra Fasulo, and Aaron Cicourel for suggestions and criticisms, only a few of which I have been able to address.

² This remains true despite many anecdotal references in Clark (1996) and a pilot study by Emanuel Schegloff (p.c.) almost two decades ago on "the double interactivity of the making of music by string quartets." There is a large related literature on jazz (see, for example, Duranti & Burrell, 2004), drawing on such treatments of jazz "conversations" as Monson (1996). There is also interestingly different yet related work on the communicative techniques of orchestra conductors (see Bram & Bram, 1998), which of course have been the subject of much study in musical theory, both academic and popular (e.g., Rudolf, 1969; Bowen, 2003, among many others).



Figure 21.1. Zinacantec musicians playing violin, harp, and guitar, seated.



Figure 21.2. Zinacantec musicians in procession.

professional string quartet (see Figure 21.3) led a class with a string quartet composed of undergraduate students. The participants involved agreed to let me videotape the class, which included two fragmentary performances by the students and a series of interactive musical demonstrations and discussions. The professional musicians focused their comments on the historical background of the quartets the students chose to perform and explicitly on aspects of coordination in ensemble play. Before the class, they also had a short rehearsal for a concert the following day.

Subsequently on November 18, 2004, I filmed a quite different master class. Students at Reed College had organized a presentation by a visiting jazz group, led on the day by a cornet player from New York, which gave a combined performance/lecture/jam session at the Reed College Student Union. Here the emphasis was on



Figure 21.3. String quartet.

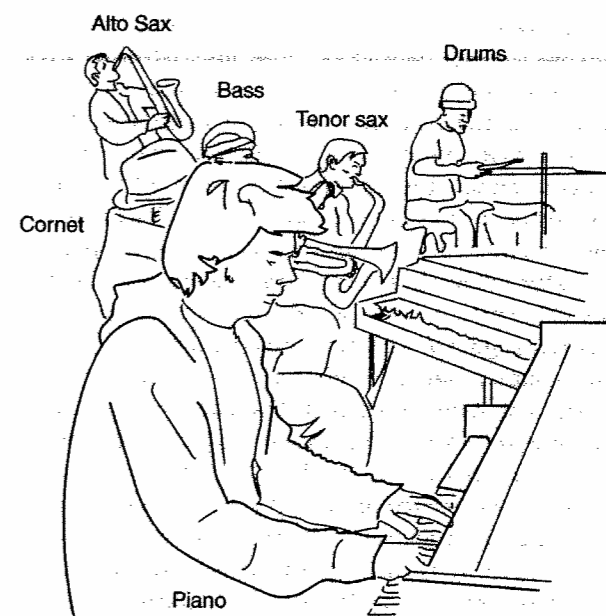


Figure 21.4. The jazz group.

improvisation, on at least an ideology of openness and lack of formal constraints, but also on mutual attention and emerging discipline in performance. The group began with a single piece, then broke for discussion with several short demonstrations in answer to student questions, and the afternoon ended with a joint jam session.

COORDINATION AND SPACE

Obvious differences among these three kinds of music emerge simply from how the musicians are arranged in space. The structuring of musical performance spaces is linked to acoustic facts about instruments and who can hear whom, to certain performance traditions, and to formal properties of the music itself (for example, its relationship to a score or a conductor). The way the musicians arrange themselves in space in turn affects the kinds of sequencing and coordination problems that arise.

The seating order for both the Zinacantec musicians and the string quartet is given by strict tradition. The linear seating order, from left to right, as viewed from in front, puts the Zinacantec violinist – the highest-ranking musician – at the left, with the second-ranking harp in the middle (the violinist's left), and the lowest-ranking guitar to the extreme right. In Zinacantec society, seating position is almost always a function of rank. (Higher-ranked people sit at the "head" of a table at a formal meal, for example, and the table is oriented so that the "head" is preferably to the east. The most senior person sits at the easternmost end of the north side of the table, so that the high-to-low rank also follows a left-to-right sequence. In a church, ideally the musicians also sit with the violinist to the right of the harpist, but in the easternmost position; in fact this is the seated arrangement shown at the cemetery in Figure 21.1. The standard seating order for musicians is an expression of a conceptual ranking of the instruments themselves: The fact that the higher-ranked instruments "speak the tunes" better than the lower-ranked ones, that accordingly higher-ranked musicians have more responsibility for performing the music because their instruments are more important, and so on.⁵ When people dance to the music, they face the musicians in a line, with the highest-ranked dancer opposite the violinist. When Zinacantec musicians march in procession, the rank order is again fixed (see Figure 21.2): The guitarist goes first, followed by the harpist, with the senior violinist taking up the rear – a standard spatial expression of hierarchy in most Zinacantec ritual processions. (People not explicitly ranked may straggle behind or run ahead, but for those participants who have specific, usually named ritual roles, the higher your rank the farther back you walk.)

Similarly, western string quartets normally sit as illustrated in Figure 21.3, with the first violinist on the left closest to the audience, facing the violist, with the second violinist and cellist from left to right at the rear. One supposes that this seating arrangement, which is a kind of miniaturized version of the standard layout of a symphony orchestra, puts the principal soloist of the quartet – the first violinist – closest to the audience and in a commanding position with respect to the rest of the ensemble. This seating position also allows the quartet musicians to see and hear each other directly, and to watch each other peripherally even as they read their written scores, which are traditionally arrayed on music stands in the area between the players – whether the musicians actually need to read the written music or not.⁶ Thus, even if

⁵ Somewhat curiously, if for some reason one musician is absent or incapacitated, the standard practice is to set aside the violin first and limp along with just harp and guitar, perhaps on the theory that an impoverished ensemble must move down but not up the hierarchy of instruments.

⁶ Concert soloists in western classical music traditionally play, of course, without written scores, because having committed the repertoire to memory is a sign of professionalism.

the first violinist is not the true leader of the quartet – for example, if the cellist is actually "in command" in some sense – the traditional seating arrangement remains, and it permits communication and coordination between all the members of the ensemble.

The physical arrangement of the jazz combo in the master class described here had a different nature. The group was arrayed in a long ragged line, piano at one end, drums at the other. The tenor sax player set himself up in a chair next to the drums and remained there, as did the bassist, hooked up to an amplifier to his right. The cornet player, the de facto leader of the group, moved around the center of the performance area, although he tended to stay close to an electric keyboard that he also occasionally played. The alto sax player started at the drummer's end of the group, but walked behind the ensemble to the opposite end of the line beyond the piano and back again, apparently as the spirit moved him. As Figure 21.4 shows, the distance between individual musicians could be large, and it seems unlikely that the piano player, for example, could even see the alto sax player in the configuration shown. Whether or not a fixed tradition (or preference) dictates where the various players sit in relation to one another – something that clearly varies with different kinds of jazz and configurations of instruments – there are presumably constraints about acoustic and visible access that limit how the performance space may be laid out.⁷ In this particular case, the jazz musicians were largely using borrowed instruments. The wind players had their own horns, but the piano, the drum set, and the electric bass were provided by members of the audience – Reed students – and had already been set up in the performance space before the performers arrived. The musicians thus merged themselves into a space already partially structured in ways outside their initial control.

Perhaps a more important constraint on musical performance is the nature of the music, and here it is worth contrasting the problems of sequence and coordination in these three musical traditions with the apparently analogous issues in spoken conversation. Sacks, Schegloff, and Jefferson's (1974) model of conversation provides an idealized turn-taking engine, purportedly universal, that first needs to be brought into action, and which, once started, will continue until explicitly closed down, because any given turn provides a series of options for a subsequent turn, but no specific mechanism for shutting down the whole sequence. As a result, a variety of independent procedures are required both to start a conversational exchange and to bring it to a close, as the classic literature argues. By contrast, the music itself in each of the cases under examination provides different resources and a different problematic for sequencing and coordination.

⁷ As Alessandro Duranti (p.c.) points out to me, it is important for drummer, bassist, and usually pianist to be in good mutual visual and aural contact to maintain the rhythmic line of the performance, although much depends on who sets the rhythm and how it is maintained.

Consider the basic⁸ cycle of six Zinacantec *sonetik* (*son* "song" + *-etik* "PLU"). The songs themselves and the order of their performance are fixed. So, too, are the words to be sung, at least in principle: Each occasion of performance brings with it a set of expected lyrics, or at least a set of expected building blocks in the parallel couplets of Tzotzil ritual language (Gossen, 1985; Haviland, 1994 [1992], 2000)⁹, although there is no fixed script for which verses should be sung in what order, how often repeated, and so on. There are thus only a few central coordination problems related to the *son* sequence itself: How to start off the cycle of tunes, how long to play each tune, how to make the transition from one tune to its fixed successor, and how to stop again. Slightly more complex is the coordination of singing: When to sing a falsetto chorus (which has no words), and in the immediately following sung section exactly which words to use from the limited repertoire of possibilities.

Canonically there is a simple Zinacantec solution to all these coordination problems: The violinist decides. The violinist signals that he is about to start playing by moving from a stylized tuning of his instrument (which in turn signals his companions to tune theirs, or to pass him the instrument because the violinist is considered to be most expert at tuning) to a similarly stylized short arpeggio, from which he moves somewhat deliberately into the first phrase of the first song. The other two musicians are expected to fall into synchrony with the violinist sometime around the end of that first phrase, although it may take another phrase or two before exact synchrony of rhythm is achieved. (The main business of the guitarist, who strums simple chords, and of the bass strings or left hand of the harp – and of the dancers' feet, when there are dancers – is maintaining such a rhythm, once it is established.) If for some reason the violinist is not satisfied with how the ensemble sounds – if an instrument is badly out of tune, or if one of the other musicians fumbles or is not quite ready – he will break off with another stylized ending arpeggio. He will restart the music once he is satisfied the problem has been corrected. As far as the singing goes, he will simply start to sing at what he deems an appropriate moment, and the others will follow, relying on their individual knowledge of the lyrics, but also on the highly predictable parallelism of the song to follow the violinist's lead.¹⁰

⁸ There are other more specialized tunes, which also come in fixed sequences. They are played for different ritual offices and fiestas, and some are played canonically with only a violin and a slightly larger, deeper-voiced guitar. What distinguishes an accomplished musician from an ordinary one is partly knowledge of these additional cycles of *son*.

⁹ Thus, for example, at the weekly ritual at the Chapel of the *Señor de Esquipulas*, which takes place on the weekend, there will always be a reference in song to *savaro // rominko* "Saturday" and "Sunday."

¹⁰ Aaron Cicourel (p.c.) has characteristically pressed me on this description. Who, he asks, monitors whether everything is working in these performances, and what happens when things go

Because for any given ritual event there is a fixed cycle of tunes, the performance will continue through to the end of the cycle. At each change of tune, the violinist simply stops playing one tune and starts playing the next, sometimes emphatically (for example with a slight crescendo). Again it is up to his companions to note the change and to adjust their own playing accordingly. Because ritual events are long, and because the music is repetitive and highly predictable, virtually no other physical cues need to be exchanged between *vyabajometik* other than the music itself – no glances, or shifts in posture, or demonstrative movements of the instruments, although these are sometimes present.¹¹ Indeed, the musicians sometimes appear to have dozed off as they play, rousing themselves with apparent effort to break into falsetto singing, or receiving a swift kick from one of their fellows if their instrument goes silent.¹²

Zinacantec *vob* thus represents something of a limiting case for joint activity: The activity requires multiple participants, but strict convention – in this case what Zinacantecs might call *kostumbre* or "custom" – in some sense predetermines the overall outcome. All that is required for coordination is a single authoritative and responsible leader – the violinist, in this case, who plays his tunes and sings his songs, and whom the rest simply follow, using conventional cues as guides to their own pre-determined and similarly conventional parts. Being a musician is tantamount to mastering the conventions, from which everything else theoretically follows automatically once the leader is in place.

Playing music resembles other performances in that it is a deliberate execution of actions designed for reception by an audience, to whom, in Bauman's formulation, the performers exhibit an explicit, self-reflexive "responsibility" (Bauman, 1977; see Berger & Del Negro, 2002). In this sense as well, *vob* is a kind of limiting case, because

wrong? It would require an excursion into Zinacantec ethnomusicology longer than this chapter can accommodate to give an adequate answer, but it is partly to avoid breakdowns in performance that ritual officeholders recruit musical groups by first approaching a violinist and then asking him, on the basis of his past experience, to choose the harpist and guitarist from among musicians he deems to have the requisite competence.

¹¹ In other musical traditions, such as Irish dance music, there can be a pre-arranged script that allows transitions to proceed smoothly. A sequence of jigs or reels can be agreed on in advance and each piece is then repeated a fixed number of times before a transition. Somewhat more demanding is the practice, common in Australian woolshed dances or New England country dances, of playing each tune three times through, and shortly before the final repetition of the final section, having the lead musician simply call out the *name* of the next tune, to which he or she jumps directly, requiring a kind of instant recall from name to tune and key on the part of fellow musicians.

¹² Zinacantecs often rank musicians not in terms of what a western observer might call their musical abilities but by explicit reference to their stamina. Major fiestas in Zinacantán can last for three days and four nights, or even longer, and musicians for the major religious officeholders may be expected to perform with minimal rest during the entire eighty-four hours. So a good musician *chkuuch yu'un vayel* "can resist sleepiness."

in Zinacantec ethno-conceptualization, although there are human spectators present and although musicians certainly both listen to and criticize one another, the audience in question is primarily thought of as supernatural: It consists of the saints and ancestral deities for whose enjoyment the music is destined, whereas co-present humans are either bystanders or themselves performers (for example, dancers).

In string quartet performances, the different nature of the music poses more complex problems of coordination, some mechanical and some aesthetic. In the string quartet master class, the professional musicians made a distinction between musical fundamentals – “just playing the notes,” staying in time with one another, and so on – and various kinds of coordination that relate to something more expressive they called “musicality.” The procedures of instruction also lead to an implicit distinction in string quartet music between true performance mode (a way of playing and a kind of coordination appropriate to performing the music for an audience) and at least two other modes, often called “practice” and “rehearsal,” each of which implies slightly different problems of coordination with different solutions.

The score is seemingly the predominant coordinating device for the string quartet. The score itself is, in one sense, a physical object whose presence in the performance has, as we have already seen, a structuring effect on the layout of the space. It is also a representation at different simultaneous levels: It shows the “notes” to be played and sometimes other aspects of technique (bowings, dynamics, etc.), and it therefore lays out schematically the whole sequence of musical actions each individual player is to perform, and how these are to be synchronized with the parts of the others. The string quartet score is also a representation of the composer’s intentions for the music as a whole. It is thus the embodied analogue of the Zinacantec conventional cycle of *sonetik*. In the case of one of the pieces performed at the class by the student group (the first movement of Mozart’s SQ in F, K590), the score also contains a name – “The Emperor of Prussia Quartet” – which encapsulates a musical tradition on which the professional group focused some of its critical suggestions. That tradition implicates a Bakhtinian series of prior performances of the quartet by other groups, tracing back to the quartet’s composition and supposed original performance, and it raises questions about the individual style of the quartet ensemble in question and its own renditions of the music.

The overall structure of the jazz performance follows a different logic. If the score is in a technical sense the string quartet’s “master plan,” in the jazz performance the emphasis is on improvisation within a schematic skeletal structure, given both by a “tune” – the piece being played, which may have its own accompanying tradition – and by an overall conventional organization that, for the Reed master class examined here, involved a) a series of opening riffs, b) a section in which a tune was

presented by the ensemble as a whole, then c) a series of improvisations by the individual musicians, and d) a final closing section that reprised the tune¹³ and ended the performance.

Once again, the formal substrate of the music in these different kinds of groups implies slightly different problems of coordination. Because the score sets out the entire sequence of notes that comprise the string quartet, for a mechanical rendition of the score all that is theoretically required is to establish a rhythm (e.g., via an agreed beat) and to coordinate the start. Once thus underway, the individual musicians could in principle simply play through to the end of the score and stop, paying little, if any, mutual attention. As any string quartet player knows, of course, this would never work, and not simply because we do not have metronomes in our heads. “... [A]ll musical notation remains of necessity vague and open to manifold interpretations and it is up to the reader or performer to decipher the hints in the score and to define the approximations” (Schütz, 1951, p. 84). Indeed, much of the effort in a master class like the one I filmed is devoted to various ways in which playing a string quartet is more than a mechanical reproduction of the notes of all the parts, whether temporally synchronized or not. As Sawyer writes, “[c]omposed music has a more constraining structure that the musicians must follow, but no notational system is capable of completely determining the final performance” (Sawyer, 2006, p. 237). There is considerable theorizing about the predominance of the group as a whole (or even the quartet as a whole) over the individual instruments or parts. Nonetheless, it is clear that minimally both the tempos and the exact moment of starting (or shifting rhythms) must be coordinated between all four instrumentalists in any successful string quartet performance.¹⁴

In the jazz master class, the musicians took pains to distinguish the “song” – in some limited ways an analogue of the string quartet score – from its quite particular (possibly even unrecognizable) rendition by the group. The flexible structure and improvised content of the jazz performance ironically requires perhaps less synchronization in starting and stopping, but considerably more mutual signaling in the course of a performance to coordinate transitions between individual solos. Whereas in their pedagogical remarks the jazz musicians emphasized flexibility and freedom from constraints (an almost complete and seemingly anarchic neutrality about keys, harmonies, and even rhythm, for example), their satisfactorily “tight” performance required intricate mutual signaling and negotiated agreement to achieve coordination.

Many of the sequencing problems in these musical performances have direct analogues in conversation, not only openings, closings, and transitions, but also

¹³ Alessandro Duranti (p.c.) informs me that this is commonly called a “head” in jazz, and that “there are gestures that embody this metaphor to signal when it’s time to go back to it after the solos.”

¹⁴ See also Weeks (1990).

managing overlaps, repairs, and even apparent “pre-sequences.” Although I will not develop the issue here, the potential solutions to these sorts of problem are different for real performances, rehearsals, and practice sessions, as well as for demonstrations, the mode of performance peculiar to master classes.

For example, the string quartet master class began with a short rehearsal by the professional group of the final movement (*Allegro molto*) of the Bartok String Quartet #4. The musicians rehearsed the final section several times. The video reveals a series of coordinating techniques, especially as the musicians try to come to agreement about changes of tempo (only some of which are notated in the written score) at the very end of the movement. At measure 360, there is a syncopation in which the first and second violins begin together, playing against each other, joined two beats later by viola and cello in a parallel phrase.

The choreography of physical signals, playing, and gaze – even in this tiny little section – is intricate (see Figure 21.5, where notes on movements and gaze appear below the corresponding line of the score for each instrumentalist). The sequence is begun, in a conventionalized way, by a bodily signal from the first violin, who lifts his bow with a stylized movement to indicate that play is to begin. The second violinist, who must start simultaneously, keeps his head turned toward the score, but moves his eyes far to his right so as to keep the violinist in his peripheral view, thus being able to coordinate with him precisely. Similarly, he glances back to the first violin at the beginning of the second little triplet, starting at the end of the second bar. At the same time, the cello player (and presumably the violist as well, though I cannot see his eyes on the video) watches the first violinist’s stylized starting gesture before returning her gaze to the written music. Both viola and cello then begin to play following the beat established by the violins, but the cello player also makes a visual check of the violist, with whom her playing is synchronized, as they come to the end of their first little run together. At the end of her second run, at a moment when only the second violin is playing a long harmonic note, the cellist again glances at the first violinist, presumably in anticipation of the little theme he is about to play.

The master class involved often intricate discussions about how different pieces of music ought to be conjointly performed, including such issues as dynamics, rhythm, and the relative predominance and responsibilities of different instruments. The little dance of physical cues, shifting gaze, eye contact, facial expression, and other sorts of mutual attention clearly involves coordination not simply of the notes or the rhythm, but reflects a series of further agreements about the organization of the music, arrived at through long practice and discussion – something Schütz (1951) calls “tuning-in.” One observes these signaling techniques even in those performances where the ensemble is maximally “responsible” to its audience, that is, most thoroughly in performance mode. During

Figure 21.5. Bartok SQ #4, 5 movement, bars 360ff.

practices or rehearsals, other more drastic sorts of cues are permitted, most notably simply ceasing to play (much like the Zinacantec violinist who simply stops playing if he thinks his companions’ instruments are out of tune). In the same Bartok rehearsal sequence, the first violinist suddenly breaks off, lifts his bow from the strings, and with his left hand makes a kind of dismissive wave to his right. The rest of the quartet stops playing, and the cellist – apparently discerning some specific intention – says “Try a little faster though,” to which he responds “Little faster, OK.” Without another word, the group immediately resumes playing from the previous starting point.

In the jazz performance during the master class, where no score provided a note-by-note master plan¹⁵ for the performance, different problems arose. In particular, because there seemed to be no preset order of solos, and because the length of any given improvisation was not apparently pre-determined, cues were required to manage turn transitions. In the class I observed, these cues took many forms. Some were themselves musical: riffs (when one musician played a distinctive improvised sequence of one sort or another), vamps (when a musician repeated a kind of holding pattern on his instrument, maintaining a harmonic progression with perhaps a minor improvisation accompanying it, in anticipation

¹⁵ Monson (1996) notes that some jazz solos are, in fact, note-for-note repetitions of previous performances, despite a prevailing ideology to the contrary.



Figure 21.6. Piano riff (other musicians prepare).



Figure 21.8. Cornetist passes the solo to the alto sax.

of another's more full-blown solo), and explicit kinds of cueing transitional phrases. Others involved bodily signals: gaze, pointing with hand or instrument, shifts in body or facial orientation, even stepping physically into or out of the performance space. Others were oriented to establishing a shared rhythm – a “groove” (Berliner, 1994, p. 349ff.) – and, indeed, the jazz performance in this class began even before the other instruments played a single note when the bass guitar player set up a rhythmic and harmonic line that he maintained for the entire performance.

A good example of a musical cue complemented by a corporeal one occurs at the end of the main piano solo when the jazz group played what was later identified as a version of King Oliver's “Camptown Blues.” This turned out to be, in fact, the last improvisation of the performance, after which followed a final reprise by the whole ensemble of the main theme or tune. The other musicians (except for bassist and drummer, who were accompanying the pianist) were thus waiting for the solo to finish so as to play their partially pre-arranged finale. As the piano player came to the end of his solo improvisation, he repeated a



Figure 21.7. Piano glance (other musicians start).

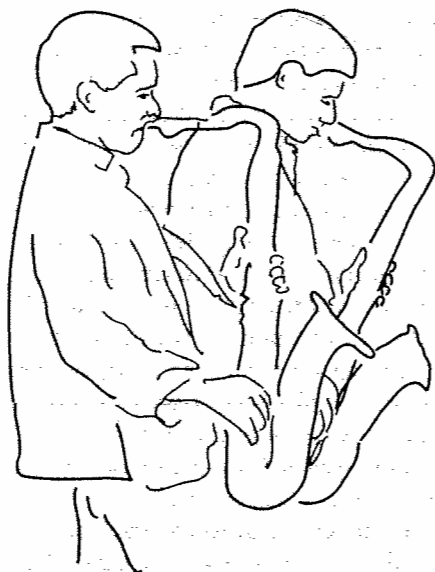


Figure 21.9. Saxophone player “walks” the solo back into the group.

single phrase in a modulated series of descending scales – a maneuver his fellows clearly interpreted as a signal that he would soon close (Figure 21.6). They began to ready their instruments, in response to his riff, and when finally the piano performer confirmed that he was ready for them to resume with a quick glance to his left (Figure 21.7), the rest of the group began to play the finale reprise.

Sometimes musicians physically hand the floor over from one improvisation to the next. The cornet player, ending one short solo with a trill, appeared to nod with head, eyes, and instrument (Figure 21.8) to the alto sax player, who responded by starting his own solo with a corresponding trill.

The alto sax player, in turn, walked from the edge of the group where he had played his improvisation back into the center (Figure 21.9), physically passing the music to the next soloist.

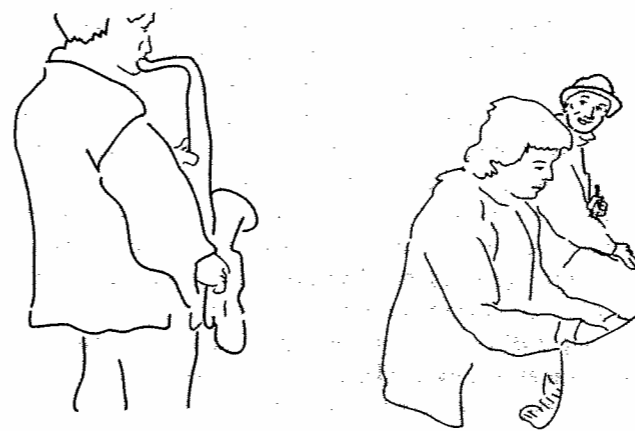


Figure 21.10. Cornet checks with glance.

A slightly more complex and explicit coordination manages a later transition from one sax solo to the other. The alto sax player (to the extreme left in Figure 21.10) has just been playing an improvisation; he appears to be finished. The cornet player (in the center), the de facto leader of the group, checks to be sure he does not in fact intend to continue – glancing at him with a little grin – then points to the tenor sax player with his cornet (Figure 21.11). The tenor promptly launches into his own solo.

All of the coordination techniques on display here depend on both the physical and perceptual properties of the spaces in which the music is being performed. How the performers are arranged constrains the kinds of visual and aural access they have to one another. Access to the instruments themselves is also at issue, as is the question of mobility. The piano player can hardly move his piano during performance, nor can the drummer move his drum set, although the cornet player occasionally moves to his electric keyboard or otherwise wanders around the space with his horn. The string quartet players have their traditionally assigned seats, but in various practice modes they can spring up and move around the musical space. Access even to the musical sounds is also variable, as some instruments can easily overpower others, especially when some are amplified and others not, so that sometimes it may be hard even to hear one's own instrument. The physical layout of the players can also respond to acoustic properties of the musical sounds emitted. In all the cases examined here, then, space itself both structures and is structured by the techniques of coordination that make the overall activity possible.

INTERACTION AND MODALITY

“Dialogues” are common in virtually all musical traditions, and they represent a peculiarly musical form of coordinated interaction: a mutual adjustment, in real time, between different actors. The little counterpoint section in the Bartok quartet described previously (Figure 21.5) represents a stylized (and pre-scripted) form of such dialogue, in which a rhythmic or melodic

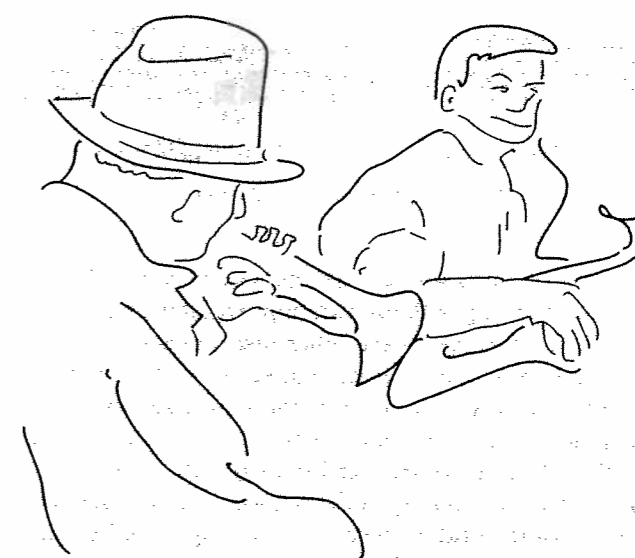


Figure 21.11. Cornet points with instrument.

theme by one instrument is echoed by another. In the jazz performance, more serendipitously, the alto sax and piano engaged in several mini “conversations” with one another, as one instrument repeated or transformed a short melodic phrase previously improvised by another and fed it back for further transformation. Berliner quotes bassist Chuck Israels who likens dialogic mutual adjustment between soloists, rhythm section, and other instrumentalists in jazz to assessments and other back-channel in-talk. “Playing with musicians is like a conversation If when I speak, you say, ‘Yes,’ or you look at me and blink your eyes or interject some comment of your own, that keeps me going” (Berliner, 1994, pp. 354–55). In the remainder of this paper, I will explore a few such musical conversations in the master classes to emphasize their inherently multimodal character.

A characteristic sort of musical dialogue in a sense engendered the entire jazz master class performance. In line with the musicians' main argument – that almost anything goes in jazz, that one can explore almost all combinations of sound, harmony, and rhythm – the performance of the King Oliver tune began as follows. The bassist established a bass line. The cornet player, de facto spokesman for the group, then challenged the pianist simply to invent something to get the tune started. “C'mon, babe, enjoy this. You can play the song, alright? Play your first chord and then ...” Here he mimed a long arpeggio across the piano keyboard with a sweeping movement of his arm. “OK, really beautiful chord, doesn't matter what it is. And you'll figure out what key it is.” The piano player obliged with a short chromatic run (shown in the first bar of Figure 21.12), a D# minor chord that starts off with a flatted ninth. The trumpeter, satisfied, then returned to the center of the performance area and played his own opening riff, basing his first melodic run on the notes of the pianist's chord (although interpreting the sequence of notes as something closer



Figure 21.14. Mozart opening (first violin part only).

11 I would suggest . a. turns head to left, looks down to score
 12 try down-

a...

13 try- . . .
 . . . b c

14 try starting out on . upbow
 a. RH with bow starts out on downbow motion
 b. lifts instrument to chin
 c. moves bow to tip for upbow

15 ((plays from music))

Transcript 21.3. Try upbow (see Figure 21.15)¹⁶

Apparently satisfied with the result, he now repeats the motion of the upbow (Figure 21.16), further qualifying it in words at line 16 in Transcript 21.4 ("very light") and producing a light inbreath through pursed lips (Figure 21.17), simulating both the "light" sound and perhaps also the anticipatory tension of the note via the inbreath. Here is a moment where words, motions, mimed actions, and other bodily performances conspire to display in multiple simultaneous modalities a musical point that could perhaps not be made with any single expressive device.

He now repeats the performance, first miming the bowing he wants (at 17 a-b of Transcript 21.5), and then playing it while first humming (17 d) and then saying "here" (18 a) at the transition to the strong downbow in the second measure (18 b) (Figure 21.18). Finally he plays the whole phrase with the desired bowing and dynamics.

In the jazz master class, performers interacted with their instruments in a similar way, although the verbally expressed emphasis was on freedom and experimentation rather than on finding the most expressive or most comfortable way to play a given phrase. The piano player dissected a long progression of chords he had improvised during the performance, explaining in words as he replayed the progression exactly what he was doing at each stage, how he had calculated the key he needed to arrive at by the end of his solo.

Even more experimental is the cornet player's demonstration (Transcripts 21.6 and 21.7), in direct interaction with his electric keyboard, of his general theme: that you can start almost anywhere and end up almost anywhere in the process of improvisation (Figures 21.19 and 21.20).

¹⁶ Because of the complexity of the illustrative materials, I have transcribed the video with the following conventions. Each line of text is shown in Courier type in numbered lines. Above these lines, synchronized with the accompanying words, are small letters indicating some phase of bodily action, which is then described in words, in sans serif type, in lines keyed to the letters that follow the transcribed speech.



Figure 21.15. "Try..."



Figure 21.16. "Try upbow..."

a. b. c

16 very light . on the upbow
 a. drops instrument from chin
 b. begins upbow motion with bow-holding hand, looking down at hand,
 c. whistling mouth, inbreath

Transcript 21.4. Very light



Figure 21.17. "Very light on the upbow."

Every note:
 If you got this
 ((plays middle C on electric piano))
 C is your root key now
 You know
 If it's a guy playing guitar he'll
 ((plays C and holds the note))
 He'll just do that
 Or he'll, you know
 C you got your- your chords
 ((plays C major chord))
 But you can put your fingers down anywhere
 I just put
 ((plays a sequence of notes, pointedly looking away from keyboard))
 Now I- I can put my fingers down anywhere
 But what that turned out to be
 ((holding chord and looking at fingers))

Transcript 21.6. Anywhere

a. b. c. d.

17 almost like . seamless on the mm. . .
 a. bows up
 b. bows down (without playing)
 c. lifts instrument to chin and
 d. plays upbow

((Plays))

a. b

18 he:re ((playing))
 a. plays upbow
 b. starts strong downbow playing phrase

Transcript 21.5. Seamless



Figure 21.18. "Here..."

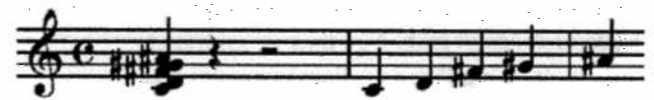


Figure 21.19. "Put your fingers anywhere."



Figure 21.20. "What that turned out to be."

Was- that's a uh-
That's a nine, that's a good chord
(simplifies the chord to C major 9)

That's a flat five
(adds it)

And that's a raised five
(adds it)

And that's a- that's a dom 7th
(adds it)

Every note
(adds another dissonant note)

Has a relationship
(adds another)

That also has a relationship to the key of C
(stops playing, points to right temple)

So, when- thing is

You have-

You know, in a sense you keep developing that in your head

Transcript 21.7. Every note has a relationship

The electric keyboard is presented as an accomplice, producing sounds as if by its own volition, for the musician then to explain, interpret, and make sense of, elaborating the demonstrated sounds in the musical metalanguage of jazz.

MUSICAL PERSONALITY

Personality in Zinacantec music is the personality of the musician: Because the tunes are conceptually fixed,¹⁷ the only evaluation readily available is of the good humor and stamina of the musicians themselves. Once someone "knows how to play," the playing matters considerably less than one's accompanying social skills.

In the string quartet master class, personality is linked to individual quartets. The Mozart #23 is traditionally one of the "King of Prussia" quartets commissioned by Friedrich Wilhelm II, who himself was an accomplished cellist. "You are the king of Prussia," the professional cellist says to her student counterpart. When the students later play a movement of the Borodin String

¹⁷ The only historical change that Zinacantecs routinely describe in the performance of *vob* is that in the olden days people played the songs "much faster."

It's true

I mean

You CAN play anything you want

And-

Over a chord

As long as you . resolve it

Now-

You can also choose . to resolve it to a non-resolution

D'y'know what I'm saying?

Like, if you feel like

Hey, if you- say if you know

I'm gonna be real ornery

I'm gonna resolve it to a note that's .

Still tense

Then, man, well

((shrugs))

That's the kind of person you are

Y'know?

Transcript 21.8. Ornery

Quartet #2, the teachers characterize its personality as "musical fireworks," which they capture through a variety of images. They try to inspire their students' playing with popping gestures of the fingers like little firecrackers, clenched fists, clapping hands, singing "exploding" syllables, or conducting with sweeping movements of arms and bows.

The jazz musicians use a similar variety of expressive modalities to characterize musical personality. They can do it entirely in words, as the cornet player does in Transcript 21.8, expounding further on his theme of freedom.

They can also explain personality with a musical demonstration, as the bass player does in Transcript 21.9, extolling the virtues of "simplicity."

They can also illustrate a different (in this case despised) musical personality through a musical pantomime, involving no real instruments, no playing, and only stylized vocalized sound. In Transcript 21.10 the alto sax player, the group's acknowledged electronics technology guru, gives his opinion about electronic gimmickry in jazz.

COORDINATION, SPACE, AND MUSICAL MEANING

I began by considering how different kinds of musical traditions structure, and in turn are structured by,

I'm . repeatedly finding that .

Simplicity is

((nodding))

Really gets me there

((arms folded))

I mean like

((picks up guitar and turns on pickup))

You know

((plays sequence of single notes, held))

((bobs head in time with slow inner rhythm))

((ends with slightly faster 3-note run))

You know, for a long time

And really like

There's a lot in one note

((several short down strokes with left hand))

And 20 years ago

((reaches down to adjust pickup))

I'd-

I was like

((plays quick run of heavily syncopated fast notes, fingerpicking))

That was me.

Transcript 21.9. One note

A: So, I mean,

Electronics is cheating, that's just a (rock out?)

Crowd: nah, ha ha ha

A: that's just if you wanna-

wanna fuckin'-

((mimes rock guitarist shaking imaginary instrument up and down))

ddduff!

((makes electronic noises, rocking head forward and back))

Crowd: ((laughter)) yeah!!!

A: that's just volume

((raises left hand and holds it, 1st and little fingers extended upward))

straight volume,

that's PA music

Public Address

((nods head and juts face forward to crowd))

Transcript 21.10. Public address

the spaces in which musicians arrange themselves. Recognizing a central problem in social activities to be the mutual, real-time coordination of actions, I showed how different problems of musical coordination arise, with solutions shaped by the spatial arrangements of musicians and their instruments, and as a result of constraints imposed by the musical traditions and the musical forms themselves. Since music making involves interaction between individual musicians, their bodies, and their instruments, musical performance inherently implicates the space occupied by those bodies and those instruments and, ideally, shared with an audience. (This is part of the special power of "live music," much lamented and often only virtually appealed to in this iPod/download age.) So in music we see/hear bodies in (inter)action, and their coordination requires not just the synchrony of turns or parts but, inescapably, of arms, legs, heads, hands, and vocal chords, as well as bits of wood and metal.

I moved on to consider coordination in musical "dialogues": dynamic balances and responsibilities in the pre-scored string quartets, or reinterpretations via the score of the composer's intentions; melodic and rhythmic lines in the jazz master class, and the orchestration of solos and improvisations. As in conversational turn taking, starting and stopping as well as engineering dialogic transitions between parts pose problems for musical performers. The solutions to these problems, the techniques we have examined for producing musical synchrony, are social and multimodal. There is a further issue of musically acceptable "substantive" coordination involving harmony, rhythm, style, and

"feeling" for the jazz musicians, and for the string quartet players an emotional interpretation for the score and its associated tradition. The musical medium, encompassing embodied rhythm, harmony, and dynamics as well as feeling, style, "groove," and imagery implies coordination that goes beyond adjacency and conditional relevance in conversational moves or "coherence" in discourse. The added logic derives as much from the multiple modalities involved in musical activity as from the non-denotational "content" of its component acts.

I then turned from simple performance to the widened frame of activity in musical master classes. Mixed expressive resources – including complex textuality – coupled with aesthetic, didactic, and expressive purposes give these classes added complexity, characteristic of many sorts of social activity whether explicitly pedagogical or not. I considered some of the metacharacterizations of music and music making that emerged in these master classes, and in particular how the music itself, and the instruments that

serve as its metonyms, insinuate themselves into the pedagogical practice.

My initial aim was to emphasize the typically multimodal devices by which these musicians manage coordination. Coordinating action is a quintessential social technique, and it is thus no surprise that we use not only our voices but our whole bodies, if not everything else at hand, to achieve it. However, it is not only coordination – precise timing, smooth transition – that is achieved multimodally. The very substance of the classes – the sense of musicality, the nature of musical personality and “feeling,” the intentions of composer and performer – all of these are multimodal orchestrations as well, in word and gesture, with body and instrument. One wonders how different our view of word, text, discourse, and conversation might have been had we started not with disembodied wiretaps of telephone conversations but with the richness of a procession of Zinacantec musicians, a string quartet rehearsal, or a jazz jam session.

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