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Creativity and Improvisation in Jazz and Organizations: Implications for Organizational Learning

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This paper originally appeared in "**Organization Science**" / Vol 9, No.5. September-October 1998, and is reprinted with permission.

"I wake to sleep and take my waking slow. I learn by going where I have to go."
Theodore Roethke, poet

"We must simply act. Fully knowing our ignorance of possible consequences."
Kenneth Arrow, Economist

"I think the fear of failure is why I try things ... if I see that there is some value in something and I'm not sure whether I deserve to attempt it, I want to find out."
Keith Jarrett, jazz pianist

At the dawn of the twenty-first century, we are in the midst of a revolution that has been called variously the post-industrial society (Bell 1973), the third wave (Tofler 1980), the information revolution (Naisbitt 1983), and the post-capitalist society (Drucker 1993). We do not yet perceive the entire scope of the transformation occurring, but we know that it is global, that it is based on unprecedented access to information. and that since more people have access to information than ever before, that it is potentially a democratic revolution. Perhaps the management of knowledge development and knowledge creation is becoming the most important responsibility for managers as we enter the twenty-first century. Indeed, ideas generated by various streams and movements including socio-technical design, total quality management, re-engineering, remind us that the fundamental shift we are experiencing involves empowering people at all levels to initiate innovative solutions in an effort to improve processes.

Given the unprecedented scope of changes that organizations face and the need for members at all levels to be able to think, plan, innovate, and process information,

new models and metaphors are needed for organizing. Drucker has suggested that the twenty-first century leader will be like an orchestra conductor. However, an orchestral metaphor-connoting pre-scripted musical scores, single conductor as leader - is limited, given the ambiguity and high turbulence that many managers experience. (Weick 1992) has suggested the jazz band as a prototype organization. This paper follows Weick's suggestion and explores the jazz band and jazz improvising as an example of an organization designed for maximizing learning and innovation. To help us understand the relationship between action and learning; we need a model of a group, of diverse specialists living in a chaotic, turbulent environment; making fast, irreversible decisions; highly interdependent on one another to interpret equivocal information; dedicated to innovation and the creation of novelty. Jazz players do what managers find themselves doing: fabricating and inventing novel responses without a prescribed plan and without certainty of outcomes; discovering the future that their action creates as it unfolds.

After discussing the nature of improvisation and the unique challenges and dangers implicit in the learning task that jazz improvisers create for themselves, I will broadly outline seven characteristics that allow jazz bands to improvise coherently and maximize social innovation in a coordinated fashion. I also draw on my own experience as a jazz pianist. I have played with and lead combinations of duos, trios, and quartets in addition to touring in 1980 as pianist with the Tommy Dorsey Band under the direction of trombonist Buddy Morrow. I will explore the following features of jazz improvisation.

1. **Provocative competence: Deliberate efforts to interrupt habit patterns**
2. **Embracing errors as a source of learning**
3. **Shared orientation toward minimal structures that allow maximum flexibility**
4. **Distributed task: continual negotiation and dialogue toward dynamic synchronization**
5. **Reliance on retrospective sense-making**
6. **"Hanging out": Membership in a community of practice**
7. **Taking turns soloing and supporting**

Finally, I will suggest implications for organizational design and managing for learning.

The Nature of Improvisation

There is a popular misconception that jazz players are inarticulate, untutored geniuses, that they have no idea what they are playing as if picking notes out of thin air. As biographies of jazz players and studies of jazz have shown, the art of jazz playing is very complex and the result of a relentless pursuit of learning and disciplined imagination. Since (until recently) there have been no conservatories or formal schools of jazz instruction, veteran jazz players are highly committed to self-renewal, having had to create their own teaming opportunities.

Jazz improvisers are interested in creating new musical material, surprising themselves and others with spontaneous, unrehearsed ideas. Jazz differs from classical music in that there is no clear prescription of what is to be played. From the Latin "improvisus" meaning "not seen ahead of time," improvisation is "playing extemporaneously . . . composing on the spur of the moment". (Schuller 1989, p.

378). Given the highly exploratory and tentative nature of improvisation, the potential for failure and incoherency always lurks just around the corner. Saxophonist Paul Desmond said that the improviser must "crawl out on a limb, set one line against another and try to match them, bring them closer together" (Gioia 1988, p. 92). Jazz saxophonist Steve Lacy discusses the excitement and danger inherent in improvisation and likens it to existing on the edge of the unknown.

I'm attracted to improvisation because of something I value. There is a freshness, a certain quality, which can only be obtained by improvisation, something you cannot possibly get from writing. It is something to do with the 'edge,' Always being on the brink of the unknown and being prepared for the leap. And when you go out there you have all your years of preparation and all your sensibilities and your prepared means but it is a leap into the unknown. (Bailey 1992. p. 57)

The metaphors of leaping into the unknown, hanging out on a limb, suggest the exhilarating and perilous nature of engaging in an activity in which the future is largely unknown, yet one in which, one is expected to create something novel and coherent often in the presence of an audience.

Gioia captures a sense of the challenge and difficulty inherent in jazz by considering what practitioners of other art forms would subject themselves to if they relied on improvisation as design.

If improvisation is the essential element in jazz, it may also be the most problematic. Perhaps the only way of appreciating its peculiarity is by imagining what twentieth-century art would be like if other art forms placed an equal emphasis on improvisation. Imagine T.S. Elliot giving nightly poetry readings at which, rather than reciting set pieces, he was expected to create impromptu poems - different ones each night, sometimes recited at a fast clip. Imagine giving Hitchcock or Fellini a handheld motion picture camera and asking them to film something, anything at that very moment, without the benefit of script, crew, editing, or scoring; imagine Matisse or Dali giving nightly exhibitions of their skills - exhibitions at which paying audiences would watch them fill up canvas after canvas with paint, often with only two or three minutes devoted to each "masterpiece" (Gioia 1988. P 52)

Improvisation involves exploring, continual experimenting, tinkering with possibilities without knowing where one's queries will lead or how action will unfold,

Learning to Improvise: Preparing To Be Spontaneous

It is worth exploring for a moment the way that jazz musicians learn to improvise in order to gain a deeper understanding of how they think while they are playing. Learning to play jazz is a matter of learning the theory and rules that govern musical progressions. Once integrated these rules become tacit and amenable to complex variation and transformation, much like learning the rules of grammar and syntax as one learns to speak. Jazz players learn to build a vocabulary of phrases and patterns by imitating, repeating, and memorizing the solos and phrases of the masters until they become part of their repertoire of "licks" and "crips." According to trumpeter Tommy Turrentine.

The old guys used to call those things crips. That's from crippled ... In other words when you are playing a solo and your mind is crippled and you can't think of

anything different to play, you go back into one of your old bags and play one of your crips. You better have something to play when you can't think of nothing new or you'll feel funny laying out there all the time (quoted in Berliner. 1994, p. 102).

After years of practicing and absorbing these patterns, they train their ears to recognize what phrases fit within different forms, the various options available within the constraints of various chords and songs. They study other players' strategic thought process that guided their solo construction, why they chose certain notes and how their motifs fit the contour of the overall phrasing.

A transformation occurs in the players development when he or she begins to export materials from different contexts and vantage points, combining, extending, and varying the material, adding and changing notes, varying accents, subtly shifting the contour of a memorized phrase. Combining elements from different musical models, mixing different harmonics and grace notes. extending intervals, and altering chord tones is a metaphorical transfer of sorts (Barrett and Cooperrider 1990), transferring from one context into another to produce something new. By combining, extending, and varying, they breathe life into these forms. The variation could involve something as simple as taking automatic phrases and extending them into new and unfamiliar contexts, such as trying out a phrase over a different chord. Pianist John Hicks recalls experiencing a breakthrough when he combined previously unrelated chords. Saxaphonist Lee Konitz attempts to create new substitutions as he plays to enrich the basic harmonic structure of standard songs (Berliner 1994, p. 161).

The aim is to integrate ideas, freeing attention so that players can think strategically about their choice of notes and the overall direction of their solos. Hargreaves et al. (1991, p. 53) hypothesize that when improvisers employ automatic thinking to execute patterns, they are free to plan the overall strategy of the piece: they are "aware of playing detailed figures or 'subroutines' at a relatively peripheral or unconscious level, with central conscious control reserved for overall strategic or artistic planning." Saxophonist James Moody practices "trying to play something that you like and being able to play it anywhere you want in a tune" (Berliner 1994, p-174). Jazz critic Mark Gridley claims that Bill Evans was a master strategist.

Evans crafted his improvisations with exacting deliberation. Often he would take a phrase. or just a kernel of its character, then develop and extend its rhythms, its melodic ideas, and accompanying homonies. Within the same solo he would often return to it. transforming it each time. And while all this was happening, he would be considering ways of resolving the tension that was building. He would be considering rhyhmic ways, melodic ways and harmonies. all at the same time, long before the moment that he decided was best for resolving the idea . . . During Bill Evans's improvisations, an unheard, continuous self-editing was going on. He spared the listener his false starts and disgarded ideas Evans never improvised solos that merely strung together ideas in the same rate they popped into his head.

The results of these deliberations could be a swinging and exhilarating experience for the listener, but they reflected less a carefree abaadon. Than the well-honed craftsmanship of a very serious performer working in the manner of a classical composer. The adjective most frequently applied to his music is "introspective" (Gridley 1991. pp. 302, 303).

It is uncertain to what degree improvisers go through an "unheard, continuous self-editing." an anticipatory virtual trial and error as they consider different directions and interpretations of the material. Within a split second musicians must project images and goals gleaned from some musical model or one they have just heard. Although Gridley theorizes that Bill Evans is thinking fairly far ahead and choosing phrases long before he played it, some musicians seem to be deciding within shorter time spans which notes to play. One player describes the subtle interplay between preheating, responding, and following an idea who sees the direction of the phrase that is just ahead of him and likens it to "chasing a piece of paper that's being blown into the wind" (Berliner 1994, p. 190). Others speak of going on automatic pilot while they think of something. repeating a phrase in order to buy time while their imagination wakes up. This no doubt, is one characteristic that distinguishes great soloists: how far ahead they are thinking; and strategizing about possible phrases, how to shape the contour of their ideas, how and when to resolve harmonic and rhythmic tension. This points toward a delicate paradox musicians face, a point I will explore below: too much reliance on learned patterns (habitual or automatic thinking) tends to limit the risk-taking necessary for creative improvisation: on the other hand too much regulation and control restrict the interplay of musical ideas. In order for musicians to "strike a groove," they must suspend some degree: of control and surrender to the flow of the music.

The previous section addressed the nature of improvisation, the challenging task of playing unrehearsed idea's, the process of developing improvisatory skills and the process of learning the jazz idiom. In the following section, I will outline seven characteristics of jazz improvisation and explore how these features apply in non jazz contexts.

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