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I. Jazz Bands as a Model for Modern Management Teams

Jazz music is based on improvisation. Jazz soloists improvise new melodies on the spot that fit into the prescribed structure of a theme. In extremely short time spans the soloist makes irreversible decisions regarding the pitch of the note he will play, the expression with which he will play it, and its rhythmic placement. At the same time, each note has an immediate effect on the next. The soloist's playing is also influenced by his fellow players.

In a good jazz combo, experts play together, constantly communicating at the same time and place. Each player listens to the others, particularly to the soloist, and responds to the harmonic and melodic development of the solo while the rhythm group's (generally piano, bass and percussion) harmonic and rhythmic figures spur the soloist on. In this way jazz improvisation creates highly intense communication among the players, which in turn leads to great creativity.

In the management world, on the other hand, the concept of improvisation carries negative connotations. When someone says, "We have to improvise," he means that things have not gone as planned, and the team has to scramble. Proper planning, however, requires a stable environment in which to implement the plan, or at least one that can be accurately assessed. On the other hand, planning is problematic in a turbulent environment in which the conditions change quickly. The importance of planning, therefore, is generally de-emphasized in newer books on business management. There are numerous examples of the exact opposite of a planned action happening, yet turning out successful. The Japanese motorcycle company Honda planned its entry into the American market with heavy motorcycles (c.f. Mintzberg, 1999). An advance team was sent to the US, but with such a limited budget that they brought along light motorcycles to get around. Domestic names such as Harley Davidson already had a significant presence in the US market, which made it difficult for Honda to break into the same market segment. The team noticed, however, that light bikes could be successful and spontaneously altered the original strategy, garnering Honda a successful entrée into this market segment.

The software firm SAP initially developed the enterprise resource planning (ERP) system R/3 to be a solution for mid-sized companies using the IBM AS 400 platform (c.f. Plattner/Scheer/Wendt/Morrow, 2000). The system architecture was changed due to performance problems, which led to the development of a system based on the technical platforms of the client-server architecture with non-specific interfaces such as UNIX and SQL that is now used primarily by large companies around the world.

These examples demonstrate that successful business management is not grounded in doggedly pursuing planning decisions once they have been made, but rather in the alert recognition of new developments and the quick, masterful reaction to them.

The CEO of LEGO Company reportedly introduced his executive board as a jazz combo (c.f. Lewin, 1998), in order to show that the band represents the ideal for a modern management team. The way in which creativity comes about in a jazz band is a model for contemporary management behavior.

A team mindset is instrumental in jazz as well as in management. Putting together a team with as diverse a base of core competencies and strong communication using the synergies among the competencies are the key to success.

The relationships between jazz improvisation and management are increasingly the subject of scientific inquiry. A number of interesting examples and insights were reported in a special edition of Organization Science magazine (vol. 9, no. 5, Sept./Oct. 1998). Both jazz musicians and organizational scientists participated in the study. Several examples in this article are taken from that study.

II. At the Edge of Chaos

Modern organizational theory pursues approaches that take into account the dynamics within companies and in markets, and that overcome inflexible organizational principles. This approach is made concrete in the concept of emergent processes. Emergent processes, which can be described as self-developing processes, are driven by employees' ideas, even though these employees may not be entrusted with these tasks. They do not emerge from hard and fast strategies, but rather arise spontaneously in response to the situation. Strategic developments are therefore more often perceived as logically interpretable in hindsight and not as previously planned.

Jazz combos are a source of constant emergent processes. Figure 1 shows a simple depiction of how connectivity – which can also be interpreted as communication and interaction – and the intensity of control with an organization determine the possibility for flexible, creative behavior (c.f. Tomenendal, 2002, and Scholz, 2000). If the organization has many rules, then all work processes are set. If, at the same time, there is little communication between the participants in the organization, so that no informal organization can form outside the constraints of order, then the organization stagnates. It is unable to react quickly to unexpected situations (lower-left section of Fig. 1). If, however, no rules exist, so that during intense interaction everyone talks over everyone else without reaching an outcome, chaos

rules (top-right section of the figure). The shaded area represents a corridor of balance between minimal constraint and maximum communication in which an organization is well positioned to react flexibly and creatively. Area II describes a more stable organization that has not yet stagnated, but does not demonstrate spontaneity and flexibility as in the shaded area.

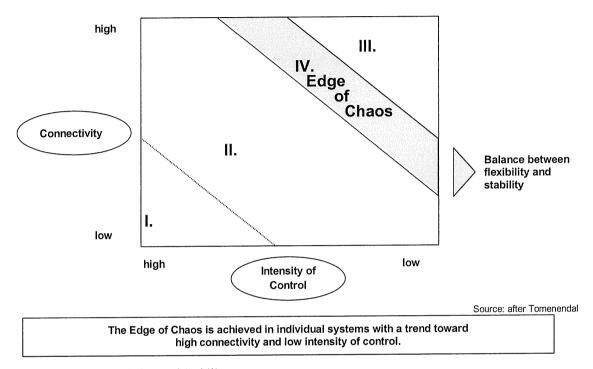


Fig. 1: Balance of Flexibility and Stability

High connectivity among members of the group creates a positive trend because the individual members exhibit relatively wide-ranging core competencies.

The individual musicians in a jazz band are specialists on their respective instruments. Suddenly exchanging instruments among the musicians would not work. Although each one has only a rudimentary understanding of the others' instruments, taken as a whole, they can produce some interesting results. This, of course, requires close communication in order to bring each instrument into the whole. A management group functions the same way. An executive board consists of specialists in law, technology, human resources, production and business activities. As a rule, the problem to be solved requires several of these competencies, which must be brought into the solution process from the group. Similarly, this is only possible with close cooperation. The corridor is therefore reached by a trend toward minimal constraint and maximum connectivity.

Synergies among the various core competencies of the musicians can only blossom when they meet at the same time at the same place. Each player practicing in his own music room

without contact with the others would not produce a joint effort. The same is true for assembling the various core competencies of a management team. Developing a corporate strategy by which each member of the board creates a concept for his area and putting it at the other members' disposal is hardly a cooperative strategy. Only when the strategy team comes together in a strategy meeting, the arguments collide with each other, and emotional and heated discussions or even disputes come about, is the atmosphere ripe to create the Edge of Chaos, to advance truly new ideas. Strategy meetings should therefore not be governed by detailed agendas or limited speaking times, but rather include plenty of time for expanding discussions. Results must naturally be summarized in concrete form afterwards.

Challenges set in the corridor can be met ideally by a jazz band. The coordination or need for control within a jazz combo is relatively low. The most important rules are set by the melody of the piece to be played. It is build measure by measure, e.g. in 12-measure sections in the Blues, or 32-measure sections in a typical song. Figure 2 shows the melody of the well-known "A Night in Tunisia" by Dizzy Gillespie, which is composed in a 32-measure AABA structure. The A-sections consist of eight measures with a set harmonic structure; the B-section, the so-called middle section, also consists of 8 measures. The harmonies of the piece are also shown in Figure 2. Good jazz improvisers know the harmonic progressions of the standard melodies, i.e. the melodies that jazz musicians play regularly, from memory. During an improvisation the soloist simply follows the structure of the piece; within the harmonic progressions he can devise new melodies on the spot.

One could say that jazz combos produce the greatest creative efforts with minimal constraint.

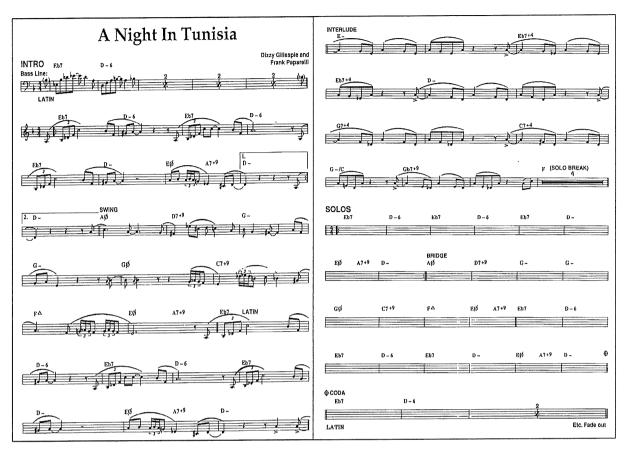


Fig. 2: Dizzy Gillespie's "A Night in Tunisia"

There is the danger of breaking out of the corridor and lose some creativity. The perception that coordination via a prescribed song structure was too regimented led to the development of free jazz, in which the group improvises practically without a set structure. Because all the musicians in the group did this at once, the interaction was somewhat excessive. Many listeners felt they had erred into chaos. The music was difficult to understand, that is, it was hard to recognize the structure governing the musical events. Because a set structure was not wanted, understanding that structure is necessarily difficult. The participants' communication and the team's ability to play off one another in turn created similarities in repetitive tone colors and collage. Nonetheless this musical direction was short-lived and found its way back to a more structured form. As viewed from the perspective of our model, it had left the top-right section of Figure 1 and returned to the corridor at the Edge of Chaos.

Leaving the corridor by the lower border means that more and more rules are creeping in or that the constraints are constant but communication is decreasing. This danger appears when a jazz group has been together for a long time and the members know each other inside out. At that point hardly anything unexpected beyond the tried and true happens. Even as fantastic a

group as the Oskar Peterson Trio eventually found a successful style to call its own and then simply copied themselves. Recordings from 1985 are essentially no different from recordings made in 1975. Miles Davis, on the other hand, has had multiple effects in developing styles. In the mid-1940s he and Charlie Parker collaborated with others to develop bebop; in the late '40s his famous recording of "Birth Of The Cool" gave birth to cool jazz; in 1959 modal jazz came about with the recording of "Kind of Blue. And later he collaborated with such musicians as Herby Hancock and Chick Corea to create rock jazz.

To prevent a group from stagnating in the repetition of clichés, they must be confronted with new situations in which what they have practiced cannot be applied. It is said that Miles Davis essentially told his musicians not to practice outside of concerts since he was paying them to "practice" on stage; they were not to reel off practiced riffs during concerts but rather be creative and have the courage to try something new. John Coltrane surprised his musicians with completely new harmonic progressions in which they could not use the phrases that had become second nature. A well-known anecdote tells of pianist Tommy Flannigan being confronted by John Coltrane's harmonies in the cult piece "Giant Steps" and having great difficulty assimilating them during a recording session. This recording was released and is considered one of the milestones of jazz. Miles Davis' recording of "Kind of Blue" is another example (c.f. Kahn, 2001).

Davis arrived at the recording with only rough sketches of the pieces to be played. The musicians were confronted with a new style of harmonic structure and melodies and had to give their utmost in concentration. This intensity was a source of overwhelming inspiration.

A management team operating in the corridor on the Edge of Chaos also runs the risk of losing the desired balance. Completely disorganized behavior, in which no one accepts the communal need for coordination, leads to contradictory decisions and actions – to chaos. Applying stereotypes ("I already know what he's going to say, so I don't need to listen.") conceals the danger of stagnation. The team can also find new impetus when it is confronted with situations that are out of the ordinary. At a British Airways management seminar, the beds in the hotel were reportedly removed and the participants were forced to sleep in airplane seats (c.f. Lewin, 1998), which assuredly led to heated discussion as to how to make the seats more comfortable. It is conceivable that the managers of a software company could be forced to use their own software in a strategy seminar.

Maintaining the balance between flexibility and stagnation is a constant battle.

III. Feel for Time

Jazz is alive in its swing feel. Duke Ellington drove this point home in the title "It Don't Mean a Thing (If It Ain't Got That Swing)." Swing is difficult to describe. It is a rhythmic feeling of tension that never is never resolved during the piece. There are scientific treatises that attempt to explain swing as a conflict between duple meter and triple meter. All attempts at explanation to this point are unsatisfactory, however. The fact remains, you feel it or you don't. While other tensions in music, such as dissonance, are immediately resolved with a consonance, the feeling of swing is maintained throughout the entire piece, making it a source of inspiration for jazz soloists. When agreement rules, when the sense of timing of all the musicians meld together as it were, unexpected explosive and matchless performance can result. One example of this is Ellington's Big Band's 1956 performance at the Newport Jazz Festival. "Diminuendo and Crescendo in Blue" elicited just such an unrepeatable feeling of tension and density, which inspired tenor saxophonist Paul Consalves to play an impromptu solo lasting 28 choruses. The band's bassist at the time, Jimmy Woodie, once told me that the band had arrived the day before from Florida, where they had played the piece for the first time in years. Count Basie's famous drummer Joe Jones was standing near the band at the concert in Newport. He had a newspaper in his hand and kept the beat with it in his other hand. The atmosphere was so dense and ecstatic as to constantly draw out new ideas from the soloists.

Keeping a group in that tension, constantly inspiring them to new ideas, getting them to swing — that is the art of being a top manager. The emotional congruence of the members of a group can be more important than their individual intellectual performance. Opportunities for this emotional congruence must be created. Breaking out of the hectic, day-to-day routine and holding a weekend seminar in an unfamiliar environment and relaxed atmosphere can be helpful. Moderators and drivers (like Joe Jones at the Newport festival) can strengthen the creative processes.

A sense of timing plays a huge role in jazz – in many respects. Anyone who has ever learned to play an instrument knows that it takes a long time to master the instrument. A good example is the story of a woman who was a fan of Benny Goodman's elegant clarinet music and bought her son a clarinet, expecting that the house would be filled with melodious clarinet music from then on (c.f. Lewin, 1998). The boy was soon relegated to the garage, however, where he was told to practice in the car . . . with the windows closed. Virtuosity takes time. Managers too must take note of this sentence. The often expect to see the success of a reorganization the next day, ignoring the long learning processes of a new organization.

Innovation does not fall out of the sky. We spent many years doing preliminary research at my research institute before we could develop our software product ARIS. In contrast, many dot.com companies in the last few years believed they could quickly transfer an idea that was working in the US to Germany and build a successful company based on it. They failed miserably.

All the great jazz musicians practiced like mad. It is said that saxophonist John Coltrane left the stage during long percussion solos so he could practice in his dressing room. Charlie Parker too practiced melodies in all keys to the point of obsession, improvising on them. Even the greatest talent is worthless without the diligence and desire to master the dexterity needed. You cannot only give of yourself, you also have to find fresh input. Musicians such as Miles Davis and Sonny Rollins had long breaks in their careers during which they did not play. Miles Davis retreated into his house for several years (c.f. Davis, 2000) to live an introverted life. (There was a dark side to his behavior that was characterized by drugs and sexual escapades.) Sonny Rollins retired to devote himself to the discovery of new worlds of music, spending time on New York City's Williamsburg Bridge playing into the wind to perfect his tone (c.f. Wilson, 1991).

Pianist Thelonious Monk lost his license to perform in New York because of a misunderstanding at the beginning of the 1950s. He used this unintentional departure from performing to compose.

Nor is a manager's supply of creativity and dynamism inexhaustible. They must also renew and expand their knowledge via a sabbatical in order to achieve new motivation and creative power.

The soloist's feeling of tension caused by swing is strengthened by other factors. For example, many pieces of music have a so-called break whereby the last few measures of the melody are open for the soloist to jump in with his solo. The best known of these is "A Night in Tunisia," which is cited above (Fig. 2). After the verse and before the improvisation there is an interlude that repeats a rhythmic figure with slightly varied melodies seven times, ending with two eighth notes that prepare the break for the soloist. The soloist has four measures without accompaniment and on the downbeat of the fifth measure must coordinate with the rhythm group as they rejoin the mix. These four measures can be an eternity. Spurred on by the rhythmic phrases, he flies off the end of the ski-jump with the last two eighth notes and has to time his jump so that he lands securely and precisely on the fifth measure. During these four measures, however, his individual feel for timing might beat differently from that of the continuing rhythm. It is not easy to reach an agreement between his own rhythmic perception

and the combo's, that is, to find the beat from the previous section – the beat the drummer will resume when the combo enters again. The soloist must fill the four measures and is busy developing ideas and preparing for his landing; he is concentrating on many processes at once that can distract him from the continuing beat.

Managers know this feeling as well. When a company is in crisis, time flows differently. The managers are looking for a quick, efficient decision, find themselves in a situation rife with exceptions, and often think that their environment is marching to the same beat. This, however, is not the case. The environment continues to march at its old pace and is not in the least interested in the company's exceptional situation. Crisis managers look for quick answers to questions in order to have a foundation on which to base the next decision. Time slips through their fingers if liquidity is jeopardized. The environment is unaffected by all that. It is imperative that managers maintain calm in stressful situations and synchronize themselves with the pace of their environment so they do not cause further damage. Being constantly assailed by partners looking for quick answers or decisions can ignite resistance. Reacting too hastily can overinterpret developments. Synchronizing the inner clock with that of the environment is therefore an important factor.

IV. Creativity in Improvisation

Improvisation does not imply indiscriminate drivel but rather creating meaningful melodies spontaneously; the soloist must tell a musical story, which naturally is based on a collection of tried and true building blocks. Just as an orator giving a spontaneous talk, a jazz musician must also command a strong vocabulary and rhetorical techniques. He must have a comprehensive knowledge of theory and jazz harmonies, be able to play the melodies of many standard pieces from memory (often in many different keys), as well as know their harmonic progressions. Additionally, he can practice melodic phrases known as patterns, which fit certain combinations of chords. This, however, is only the vocabulary that must be linked spontaneously to create new, meaningful sentences. The chorus must also be fashioned so that the listener understands the intent of the solo. If the musician simply lines up technically impressive tricks one after another like so many exercises, he achieves only randomness. It no longer matters if the fourth chorus is played after the third, or if it could just as easily have been played before the third. The listener would not recognize the construction of the solo.

Perfect solos, as played, for instance, by Chet Baker, Gerry Mulligan, or Miles Davis, are not like that; each chorus builds on the previous ones, and every note has meaning.

Playing more notes per second is no measure of the artistic value of a jazz solo. Musicians such as Chet Baker, Miles Davis, and Gerry Mulligan make an impression by creating melodies using fewer notes.

Managers giving presentations should follow these rules. Less is often more. An onslaught of slides in which umpteen transparencies march across the overhead or beam through the In-Focus projector in a short time makes no impression; clear statements that build logically on one another sell the argument. The higher the manager's position on the ladder, the fewer slides he should use, relying instead on his charisma and personality.

Although intellectual effort, such as adhering to the harmonic development of the piece, is required in improvisation, emotionality also plays a large role. A third component is motor function, which pianists or saxophonists must possess in the form of well trained dexterity. Coordinating these three components, intellect, emotion, and motor function, requires tremendous effort. The emotional side merits particular emphasis. The excitement and tension created by rhythm and swing help the soloist to construct intelligent sentences from the available building blocks of words in the blink of an eye. Much of this happens subconsciously, that is, the soloist immerses himself in the rhythmic and melodic feeling of the piece and lets his heart lead him. He is often surprised himself when he hears a recording of his solo. It is not unlike a centipede, which does not know what a difficult feat of coordination it is for it to walk; it simply walks. If it knew the complexity of the task, it would surely stumble.

Too much intellectual control during a solo can be a hindrance. The soloist holds fast to the practiced patterns and the actual release of spontaneous and unexpected ideas is missing.

Successful entrepreneurs often act based on their gut. Instinct and anxiety are probably indispensable for successful entrepreneurship. Of course, gut feelings are not only inborn but also the result of many-sided experiences, which have become behavior patterns that can be called up spontaneously when the situation demands. Risky decisions, interviews, and forming partnerships with other companies are often decided on gut reactions.

Reacting quickly and coming up with interesting remarks often has to do with humor and wit. Long-winded stories are to be avoided; short anecdotes with a point carry the day. Jazz musicians typically have a feel for wit and humor. The number of jokes about musicians proves it. The shortest one may be:

Three jazz musicians walk past a bar

Another points up the difficult economic circumstances of jazz musicians:

Question: How does a jazz musician become a millionaire?

Humor and wit are not usually abundant commodities at the executive level. Business suits tend to elicit a more formal atmosphere. In this setting a shot of *esprit* and an eye to the punch line could often render affected behavior more personable and communicative.

V. Jazz as a Learning Process

Jazz is a genre that lives on the continuous learning of the musicians. Each one listens to the others, plays the soloist now, the accompanist then. Because surprising situations are constantly arising, misunderstandings and even mistakes are possible. Jazz is therefore not *musique accomplie*; rather creativity predominates. You cannot be afraid of mistakes if you plan to try new things. Mistakes are part of the learning process; only those who never try something new never make mistakes.

This realization is valid in management as well. Not every idea for a new project is successful. The cancellation of a product is not a failure, but only proves that during product development new discoveries arose that corrected the original assumptions. The courage to open new markets or develop new product ideas must be seen as a positive. Naturally every idea should be analyzed critically, but it should not be killed off from the beginning with overly critical arguments.

In the first hundred years of jazz, changes in style followed closely on each other's heels. We have already mentioned that Miles Davis influenced the development of new musical directions four times during his lifetime.

Being on the crest is only satisfactory in a long career if the style is stable over time. Simply running after each new wave is not enough, since the other artists who created the wave have already established themselves.

In the high-tech world, the ability to open oneself to new waves of technology and help develop them is a requirement for the long-term survival of a company. Companies that led one technological wave only to sleep through the next have disappeared from the market despite their great successes. SAP, on the other hand, has been successful in being on the leading edge of four technological waves with its R/1, R/2, R/3, and mySAP.com products. Digital Equipment, on the other hand, was once the second-largest hardware manufacturer in the world, leading the wave of networked PCs, but overlooking the wave of standardized operating systems, database systems, and networks, only to be bought out by Compaq.

VI. Competition and Creativity

The athletic competition among jazz musicians is another driving force for enthusiasm and inspiration in music. To some extent competition is an integral part of a band. Count Basie's band, for instance, employed representatives of various tenor sax schools, whose solos amounted to intense "tenor battles" as to who was the best, that is, the most imaginative and expressive, musician. Students of tenor saxophonist Colman Hawkins represented a sonorous, vibrato-rich style of playing, which Lester Young and his students preferred a more restrained style. In the beginning Hershel Evans and Lester Young were the established combatants; later it was Frank Foster and Frank Wess. The famous Miles Davis Sextet employed polar opposites Cannonball Adderley, a saxophonist associated with the blues, and John Coltrane with his more modern style.

Musicians can kindle each other in jam sessions, inspiring each other to true flights of fancy. They also try to outdo one another in "trading fours," i.e. in playing four measures of a chorus in alternation. In impresario Norman Grantz's Jazz at the Philharmonic concert tours, combos were put together in such a way that the battles became the highlights of these concerts. This competition is not hurtful; rather it serves to provide inspiration. The players absorb other players' ideas, incorporating them into their own improvisations, resulting in a high degree of communication.

Agreeable harmony need not rule the day among members of a management team; competition in this context can improve the team's performance. It may not, however, be harmful; individuals should not desire overmuch to make their mark at the expense of other team members. Conceptual differences of opinion and differing temperaments can, however, increase creativity and promote new strategies. Drivers and preservers within a team can temper overly risky maneuvers while at the same time averting the danger of stagnation.

VII. Right and Wrong are Neighbors

Once in a while a wrong note makes its way into an improvisation. A wrong note means that the pitch sounds harsh in the momentary harmonic context. In the rule, the neighboring pitches a half-step above and below the wrong note sound "right" in the harmonic context. If the player is successful in playing the neighboring pitch as soon as he perceives the "wrong" note, the listener hardly notices it as the wrong note becomes nothing more than a passing note and the "correct" note is emphasized.

Similarly, in the aforementioned examples of Honda's introduction in the US market and the development of SAP R/3, the "right" strategy lay adjacent to the "wrong" one.

If the Honda team had retreated from the US following the miscarriage of its original plan to introduce heavy motorcycles to the market, its subsequent market success with light bikes would have been precluded. They were correct in recognizing the US as a foreign market; the right product was only a half-step away from the original one.

The R/3 development team could have given up when they discovered that their original product was not technically appropriate. But in this case as well, the right solution was immediately next to the wrong one. The were correct in developing a new software for decentralized computer systems, but the proprietary AS 400 platform was wrong and the neighboring solution with the UNIX operating system and other neutral standards was the correct choice.

This knowledge means that what appears to be a failure need not necessarily be final, but must be analyzed to determine its causes, and the neighboring variants checked carefully to find the pearl inside the oyster.

There is another possible reaction to playing a wrong note: simply emphasize it all the more, intentionally sustain it, or repeat it several times. Because there is actually no such thing as a wrong note, only unaccustomed sounds in a particularly harmonic context, one can interpret the note as intentional. Harmonic "ouches" are customary in music because they can be resolved subsequently in more pleasing harmonies. Intentionally emphasizing a wrong note in order to resolve it is therefore an acceptable technique. This process is reminiscent of the cynical sentiment, which is therefore to be avoided, "Telling an outright lie and then insisting on its veracity as good as makes it true."

VIII. Relaunching old Products

A song that serves as the basis for an improvisation consists of a metrical structure, harmonic structure, and the melody. Variations on metrical structure are relatively limited in jazz. The 32-measure bar form AABA consisting of four 8-measure phrases dominates. Some harmonic progressions are particularly well suited to improvisation. So that the melodies that fit them do not get old, new melodies are often composed to these harmonies. The best known is the blues form, to which untold melodies have been composed, followed by "rhythm changes," based on George Gershwin's "I Got Rhythm." The harmonic progressions in this form are also simple and offer the improviser many opportunities to develop the melody. Many

melodies have developed to far beyond the original theme of "I Got Rhythm" that they hardly seem related, for instance Sonny Rollins' "Oleo" or Charlie Parker's "Thriving on a Riff."

Developing new products based on successful existing products is called a relaunch in corporate marketing. In a relaunch, a proven product concept is modernized with a new marketing profile or updated technically. Consumers pick up on what they are accustomed to and have accepted in order to obtain something attractive in the form of new properties or image factors.

IX. The Jazz Solo as a Dynamic Process

When a jazz musician starts his solo, he doesn't know the whole construction, let alone the melodic arch he will play. Moreover, he begins with a phrase that may build on the last notes of the previous solo. The next phrase is then influenced by the preceding one and is either the answer to the first measures he played or a development of these measures. As he continues, this process repeats itself while picking up and incorporating impetus from the other players. Basically, a solo is a self-perpetuating development process in which the musical thoughts build on their predecessors and become the basis for those that follow.

Similarly, the history of a company develops from decisions and strategies that build upon one another. Not every decision or strategic direction must be ideal in itself; rather their contribution to the overall development is important. Wrong decisions, after they have been corrected, can have made sense as they contributed to increasing knowledge. A phrase in a solo that in and of itself may demonstrate little intuition can spur the musician on to give his next musical thought more content.

X. Can Improvisation be Learned?

Just as classical composition is taught in conservatories and composition can be learned, so can jazz improvisation be learned. The contradiction of the creative energy of a composer or jazz improviser constitutes nothing more than the expansion of what has already been learned with new sounds. Improvisers can learn just as orators learn the words, grammar, and word combinations that they put together in a spontaneous speech according to their emotional state and intentions. Prepared speeches are generally boring, while an extemporaneous speech delivered with passion can be interesting.

The jazz musician's grammar is the study of jazz harmony. Whereas an orchestral player in a classical orchestra primarily requires the ability to play from the printed page and therefore does not absolutely need a comprehensive knowledge of harmony, this knowledge is of utmost importance to jazz musicians and brings them a step closer to the requirements placed upon composers in the classical world. In addition to the harmonic structure – the grammar – the vocabulary is also important. There are untold snippets of tunes, usually constrained to one to four measures, that can be practiced for individual chords or chord progressions. Learning these melodic bits from memory and stringing them together mechanically in a solo is by no means a successful improvisation. Musical depth, surprising ideas, and emotional involvement are all missing.

An important instrument for a manager is his influence on his team or his customer's decision-makers using rhetoric. Phrases learned in rhetoric classes are often immediately recognized as just that and are rarely convincing, but more often expose the speaker for what he is. Charisma is also the result of the life experience of a personality. In exactly this way the jazz soloist's overall personality determines his musical depth. There is no argument that Louis Armstrong played technically and musically brilliant solos in the 1920s that are still worth listening to today. His trumpet playing in his later years, however, also holds the highs and lows of his life and is worlds apart from his earlier style in the strength of its musical expressivity. The same is true for musicians like Miles Davis or Sonny Rollins. Precisely because the individuality of musical expression is in the foreground of jazz there are unique opportunities for incorporating the musician's individual personality.

Dynamism, aggression and technical brilliance are not the be all and end all of management. Great entrepreneurial personalities radiate social competence, life experience, and autonomy. Living and learning go hand in hand.

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