Music as a metaphor for the medical consultation

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This is the story of a journey down a path of ideas and reflections about the role of music in the practice of medicine. It was stimulated, amongst other events, by a workshop entitled "The Arts in Medicine" presented at the 2007 'Network: Towards Unity for Health' conference in Uganda, by a team from the University of New Mexico. This led me to an article in the Annals of Family Medicine entitled "Jazz and the 'Art' of Medicine: Improvisation in the Medical Encounter" by Paul Haidet.[1] But it is also informed, as many journeys are, by half a lifetime of experiences and unanswered questions, in my case, of medicine and of music as two separate and mutually exclusive activities. Medicine has taken the lion's share of my time and energy, and is clearly work for which I get paid, whereas music has been relegated to a hobby when time and energy allow. And I believe that there are many others in a similar situation - doctors or nurses or other health care professionals who are in fact very creative people, but for whom the demands and prerogative of the medical vocation has squeezed out music, art or other forms of expression, and relegated them to less central roles in their busy lives.

So Paul Haidet's article intrigued me - what connection did he find to integrate these disparate fields? His ideas revolve around the activity, the trait, and the event of *communication,* drawing the comparisons between patient-doctor communication and the communication between jazz musicians, for whom improvisation is a central component. *"The medical encounter, like most encounters involving communication, is typically unscripted and constructed 'in the moment'".*[2] In order to be truly patient-centred, we need to use the medical patterns of enquiry as a baseline, but be prepared to adapt, to change direction, to listen attentively in order to pick up the subtle cues that will allow us to tune into each individual patient's unique context and situation. In this way we are improvisers, co-creating an event - each medical consultation - that is unlike any other consultation. As Haidet explains, *"physicians must be skilled improvisers, able to efficiently explore the unique aspects of a patient's illness and communicate in a way that is in harmony with that patient's style, all the while managing the tension between new territory and established patterns inherent in their communicative and clinical training".* And this is essentially what the study and discipline of Family Medicine enabled me to see - it let me out of the jail of the biomedical pattern, and reintroduced me to the person, the unique individual, in their context, who happens to be a patient at the time of the consultation - and this gave me a renewed enthusiasm for clinical practice that I have never lost.

It seems to me that the jazz set and the medical consultation are both about playing with *patterns.* In jazz a basic pattern is laid down - a rhythm called the "groove" and a chord progression called "the head" - usually by the drums and bass and the keyboard respectively, often by all the players together. Then the soloist uses this as a starting point for an exploration of the musical idea, improvising on the spot by changing the rhythm or the key or the pitch while echoing the original melody. In medicine we create patterns of clinical practice through recurrent usage, and patients' patterns emerge out of repeated episodes of similar presentations. As much as each individual patient is unique, the majority of consultations conform to one or other pattern, and the experienced clinician and jazz musician are both experts in patterns. And then what they do is to test that pattern, push it a bit, turn it around and look at it from a different perspective, see if the physical examination or lab findings tie up with the hypothesis generated by

the initial verbal interaction. Often the initial impression is confirmed, the patient's situation or request conforms to a common pattern, an appropriate response is obtained and both the patient's and the doctor's agendas are fulfilled. This generates a certain satisfaction in itself, particularly when the doctor and the patient know each other well over a long time - the old tunes are familiar and reassuring. But where it gets really interesting is when the expected patterns are disturbed or challenged, when someone breaks away with a solo that no-one has ever heard before, when the head is challenged by a new idea, or the established pattern of the consultation is disrupted by an emotional outburst, an unexpected physical finding or lab result. Experienced clinicians, like experienced musicians, are adept at making split-second decisions, anticipating the direction of a passage of communication, and taking a different direction in response to a cue from another, in the millisecond before it actually happens. Suddenly, we are alive, we are present in the moment, we are drawn to the immediacy of the music, whereas a few moments before we were being lulled into familiar patterns, thinking we knew where we were going. To be present in the disrupted patterns and unexpected happenings that characterize both live music and clinical practice, can be an exhilarating experience. This is what makes clinical practice fascinating and absorbing, in the same way that we are drawn to live music - one is necessarily "in the moment", if you never quite know what is going to happen next.

As a largely classical musician myself, I wonder whether this analogy is exclusive to jazz improvisation, or whether the same principles could be applied in classical music. Here there is a much clearer distinction, a division of roles, between the composer and the performer. Whereas the jazz soloist is composer and performer in one, in classical music the composer is the one with the original idea, the original creativity, who conceives of the rhythm and melody and harmony, and puts it down on paper. This written music is then taken up by performers who may be totally unrelated in time and space to the composer, and reproduced according to the composer's direction. Performers are therefore interpreting or modulating or enhancing someone else's original creative idea - but they are in fact being creative themselves in their interpretations. In this analogy the pattern is the written music, faithfully reproduced by different performers, but never identically because of each performer's unique interpretation. What makes the difference between a world famous pianist playing Mozart and a schoolchild playing the same piece is the depth of interpretation and nuance that the expert brings, which is a different kind of creativity. And here the analogy to the medical consultation becomes clearer - whereas the student clinician may "play the right notes" according to the written score prescribed by the experts, the experienced clinician who listens and responds to the patient's unscripted intentions picks up subtle cues and takes some liberty in developing his or her own style in the consultation, and in effect "creates music" like a concert pianist. The adaptation of the basic pattern to the unique situation of the moment, in jazz by the improviser and in classical music by the soloist performer, finds a metaphor in the on-the-spot adaptation of clinical algorithms to the unique circumstances presented by a particular patient in the medical consultation. The central process in all of these encounters is meaningful communication, including active listening by all participants.

In the visual artist's world there is a separation of the creative process from the appreciation and response that it evokes in the viewer that is similar to that found in classical music.[3] The viewer who engages with painting for example, at a completely different time and place to the artist's original creative moment, sets in motion a secondary creative process, in terms of his or her internalization of the painting, stimulating associations with the significant things that are different and unique in each viewer's life. So there are in fact multiple processes of this nature set off by each viewing that are as varied and diverse as each of the individuals who see the painting. The analogy is maintained here in that a "pattern" is created and set down - in this case a piece of visual art - but each person's response to the pattern is different, just as each patient's response to disease and the standard management of it, is unique.

There is music that we listen to for the first time, which doesn't always make sense on first hearing. As family practitioners we often need to see the patient a few times before patterns emerge and we have a sense of who this person is and what is going on. And we develop our own reactions - we tend to like some patients more than others, just as we enjoy listening to some music repeatedly.

Some tunes are well known and we whistle them in the shower, long-established traditions of song and melody - I think of the Viennese opera-goers who know every note of every opera, and love to hear it and be part of the event again and again. These are our old faithful patients, people we have had a relationship with for years and years, usually with a chronic disease that we have helped them cope with for decades. Even with them, we have to be alert not to miss the unexpected, the new soprano from Italy who brings a completely fresh interpretation of the aria, the CPD session which introduces a new approach or drug that changes the treatment.

There is however, a downside to all of this - when we are constricted rather than released by the patterns that we have helped to create, and can no longer "hear the music", when clinical practice becomes just one long series of apparently predictable boring complaints. Or when playing in an orchestra, for example, becomes just a means of earning a living. We can get jailed in by our patterns of thought and behaviour and actually stop living in the present, no longer noticing the unexpected or the extraordinary when it happens in front of our very eyes. I find it amazing, and saddening, as I was told recently, that a junior doctor working in a district hospital can possibly find their work boring. It indicates that we have not given them sufficient tools to go beyond the clinical protocols, beyond the standard algorithms, to the heart of medicine. Medical school, in this sense, has closed down the enormous creative potential in students rather than awakening it, by imposing rigid norms of practice without allowing for individuality. Clinical practice is endlessly fascinating, but only if we see it that way, if we are able to tune into the extraordinary and unique lives of each patient who comes through the door, and see them as gifts, blessings. Maybe that is the difference - we expect this of music, whereas we don't expect our patients to bring gifts. If we approached our clinical practice anticipating something alive and listening "in the moment", in the same frame of mind as we go to a live concert, maybe we would have a more interesting time in the office!

It turns out that there is some literature on the subject, apart from the well-established field of music therapy.[4,5,6] Powley and Higson's book "The Arts in Medical Education" provides an absorbing and practical approach to incorporating the arts into our formal educational programmes.[7] They run post-graduate courses for General Practice registrars in the UK using the arts *"as a way of retaining the balance in everyday medical practice between, on the one hand, applying scientific knowledge and procedures, and on the other, engaging with the patient's own stories, beliefs and emanour, their experience of illness and the influence of their culture and environment."* They take

groups of registrars to art galleries, share poetry and narratives, listen to music, and explore how the dramatic arts can help us understand our patients better. For our undergraduates, problem-based learning would seem to offer a suitable platform for a more creative approach to medical education, and these opportunities need to be explored.

Storr[8] explains how music creates order out of the "chaos" of random sound by introducing the elements (patterns) of rhythm, melody and harmony. In seeking to understand why music is so important to us all, he traces the development of modern and classical music from its origins in pre-literate societies where it performs a crucial social function usually accompanied by dancing. In a fascinating chapter entitled "Escape from Reality?" he repudiates the notion that *"music and the other arts are some kind of substitute for, or escape from, 'real' life."* However, many people see and use music as just this - a comforting escape from an unbearable present reality, or a means of recuperating from the onslaught of modern life. But it is potentially much more than that: it can enhance our daily lives rather than substitute for them, bringing to life what at first glance seems ordinary. And in this sense, we have a lot to learn from a musical appreciation of medicine.

It seems to me that there are two types of creativity in tension here - a "reproductive" one in which the main focus is to create order out of chaos, to create patterns and orderly ways of thinking that others can follow, that are normative and can be generalized. This may be compared to the composer of classical music who writes a score, or the clinical experts who publish a set of clinical guidelines. Bach exemplifies this type of creativity because he creates an intricate and elegant order out of an apparently overwhelming complexity of notes and phrases. The other type - we may call it "transformative" - is the creation of original ideas, different to the norm, that challenge established patterns, and are unique and individual. This is exemplified by the soloist who experiments and improvises, taking risks and pushing the musical envelope into new territory. Both of these are highly creative processes, and they are not mutually exclusive - for example the composer who pushes the boundaries of convention, as Beethoven did in his time, or the drummer who takes a solo. And all the accepted patterns that we live with now and take for granted, were themselves once new ideas, or original transformations of previous ones. The principles by which we practice family medicine, for example, are only a few decades old, and are evolving further as new ideas are incorporated. For example, what difference does it make that we practice medicine in South Africa, with its massive inequalities and huge burden of disease and poverty? We definitely need some very original and creative new patterns to be established; both in clinical practice as well as in the communities we serve, if we are to make any impact on the health of the nation.

As clinicians we need to be both thorough and methodical so as not to miss an important clinical symptom or sign, and also, simultaneously, to be able to improvise, to anticipate the unexpected, listening for the cues like musicians. We need to be creative in our familiarity with the patterns that we deal with and not take them for granted, and then test them, push them to the limit and try out different ideas, creating new approaches and ways of practicing our art through research and innovation.

This is what we can learn from music.

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