

>> Welcome to another Music and The Brain podcast. Today I'll be talking with Vera Brandes, who first burst upon the music scene thirty five years ago, as the seventeen year old promoter of one of the most famous events in jazz history, the Keith Jarrett Solo Piano Concert at the Cologne Opera House. The recording of that concert became the most popular solo jazz recording of all time. I wanted to ask her about that, but first we talked about her current job as Director of The Research Program in Music Medicine at Paracelsus Medical Private University in Salzburg, Austria. I'd seen a picture of someone I assumed was Paracelsus on the Universities website and I wanted to find out why her school had taken its name from this curious looking renaissance physician, scientist and astrologer.

>> He is considered to be the Godfather of alternative medicine. And I have to say in that sense, my University is not the typical example for what you would call a University that is intensively investigating complimentary and alternative modalities of medicine yet. And that is because the University is very young. It most recently started medical school on the European Continent and of course, it had to earn its merits in conventional medicine. And that it was possible to start The Music Medicine Research Program there from day one, was really an exception. It's the only modality of complimentary and alternative medicine that's currently researched at the University.

>> I want to find out a little bit about you, if you don't mind because in reading about you, obviously everyone starts with your work with Keith Jarrett, thirty five years ago. And I need you to tell me a little bit about how that happened and then we're going to go into your work today, but this is, you know, for someone who grew up listening to that record, for someone for whom that album, "The Cologne Concert," is one of the most important albums in my past. I'd like to hear a little bit from you about how you got involved with that.

>> I was seventeen years old and I grew up in a family where music was part of our life. And one of my closest friends, who was much older than I was, she was the later wife of a very important journalist that was also the man that was the principal announcer of the Bowen [assumed spelling] Jazz Festival. And when I was fifteen, sixteen years old, they were starting to take me to all the great jazz festivals. And I mean, I met the greatest jazz musicians backstage and I mean you can imagine I was sixteen, fifteen years old. These guys, you know, were questioning themselves, you know, what is this young girl doing behind the stage at these festivals? And I became friends with them. And a lot of people that were in the record business at that time, I got to know them and I met Manfred Eicher and [inaudible] all of the musicians that were recording for ECM at that time. And so, it was the most natural thing in the world to start helping them out and I started to do tours for people like Ronnie Scott. I used my father's telephone at the time that he didn't need it, which was basically at night and started calling up jazz clubs and getting jobs for these people. And then at one point I started to produce concerts and that was just maybe three quarters of a year before that Keith Jarrett concert happened. And the first group that I actually put on stage in a real concert hall, rather than a club, was Oregon. And the members of Oregon have become my friends and they still are. I mean,

they're friends for a lifetime. And I just had this enormous luck to meet these incredible musicians at that early age in my life, which I'm so thankful for and I hope that what I was able to give to them, paid back for what they gave to me.

>> Wow, that's a fabulous story and I know since we only have a few minutes for you to take me from there to here, to today, when you are working on this wonderful project to use music as medicine. Tell me when you first got the idea to do that.

>> It is a very short story.

>> Okay. [brief laughter]

>> It's a very--it could be a very long story, but I could make it very short because the power of music in healing yourself was something that I experienced in my life so many times. And then when I was a producer of concerts, where we started with a hundred people and ended with ten thousands of people and big stadiums and when you can see it what music can do to the individual and to the collective of mankind, it is so powerful that of course, I wanted to know more about this. And I come from a medical family, conventional medicine, totally convinced that that's the only type of medicine there should be and then on my disappointment, with conventional medicine, led me to become, on a private level, an expert in alternative medicine. And it was just a matter of time to combine the two and to see, you know, if music can heal the souls of people, then of course, it can heal the bodies. And I wanted to know how do we go about this and how can we find out what music we have to use for what disorder and what time and what dosage and how do we come from this general observation to something that is personalized medicine at the state of the art and qualified and measured and tested and evaluated by the very same methods that are used in modern medicine and pharmacology.

>> Now, I was reading that music can be used for some psychosomatic illnesses and yet, my understanding when I was growing up, is that a psychosomatic illness was something that wasn't real. And I know that the derivation of the word and of course, a medical person would not say that about psychosomatic illnesses. They're as real to the person suffering them as anyone else. So, help me understand how and why medicine would be used for a psychosomatic illness and what exactly is a psychosomatic illness?

>> There are two different opinions what a psychosomatic disease is. In western medicine, we believe that it's, mental, psychological and an emotional issue, that has manifested somatically. So, in former times for instance, there was a lot of misunderstanding about psychosomatic diseases. Ulcers were considered to be primarily caused by stress. Where today, we know it's absolutely not the case, it's a simple bacterial infection and it should be treated with antibiotics and nothing else. But ninety percent of all diseases have components of psychological stress factors, either as a cause or as consequence. And if you don't look at them at the same time, then healing just on a physiological level is very, very difficult. What we in the German language territory call

civilization diseases are basically disorders that have something to do with very stressful lifestyles and they manifest in substantial, physical disorders. But what medicine can do to ameliorate the symptoms of these disorders is keeping the symptoms at bay chemically with appropriate medication. What of course, would be much more preferable, is to look at the cause of these disorders and to see how we can get people back into a healthy lifestyle and avoid them getting it in the first place or once they have it, get back into being physically and psychologically in a state where they can help themselves without being on medication for the rest of their life.

>> And how does music fit in with that?

>> I think that music is the easiest and the most effective way of getting the body back into a normal functioning once it's out of that, if it's done right. But just if you see at the rates of disease of people depending on their profession, the healthiest people on this planet are singers and that is because breathing is so essential. I mean, that is the oxygen that our body needs and the stressful life that we have primarily living in big cities, we don't get the amount of oxygen that we should have. But breathing deeply and relaxed and profoundly, I should say, is something that occurs naturally when you know how to sing. So, I think that singing with children in school is the best prevention that we could do.

>> In reading some of the things you've written, I know that you were hoping to help bring your ideas forward by giving some proof of how the methodologies and the modalities work. So, tell me a little bit about the research that a layperson would understand how you're looking into the way music works and making sure that you can describe this in a replicable way.

>> We do two different things in our research. First of all, we try to understand what the exact mechanisms of music are. How does it have to be shaped and how does it have to be applied to get to the results that we like to see in treating certain disorders. On the other hand, what we do is, we do clinical studies that are designed just as if we were testing a conventional medical method. And that is the only way that we can convince doctors to be prescribing music instead of medicine. And of course, doctors have to know about all of the possibilities and they have to know that they can trust the formulas, the auditory stimulant formulas that we are developing. So, this is why this clinical research is so crucially important. And I'm very proud to say that a lot of conventional medical societies have now started to look at this and to take it really serious and that's based on the fabulous research that I was able to conduct due to the help of incredibly qualified scientists that I have been able to bring on board to conduct these studies.

>> Now, the music that you prescribe is not music that you use that's been composed already, but music that is specifically composed for your use.

>> Mm-hmm.

>> Can you tell be a little bit about it in terms of what does it sound like? What's the instrumentation? What's the tone of it or is it all over the place?

>> We very soon learned in our research, that we had to use music that nobody knew before. When we listen to a piece of music our brain and also I think our body, remembers that moment and associates all of the circumstances of the moment when we listen to a piece of music for the very first time. And that's so deeply in our memory that we cannot separate the memory from the music. So, if we're trying to address an issue like depression, which is of course, associated with hopelessness and the negative expectations of what comes next, then introducing music that you hadn't heard before, is a very special moment. And it can be associated with all of what you have lost primarily with the hope of things to change for the better. Also, the music has to be structured in a way that it addresses all of the factors that are involved in depression. I mean, depression is an extraordinary complex disorder and there are so many different types of depression. There are underlying mechanisms that we look at from a chronobiological perspective, where we know that it's either the lost ability to relax or the lost ability to activate and we have to look at this individually. But the music has to be something that can be really adopted and become over a certain stretch of time, part of your life and guide you into, back into a healthy state. It may be possible to do this with music that people know, but in order to be able to apply it so that I can say this works with proven and clinical studies, that this music program will help close to ninety percent of the people that are following the listening schedule, saw already within five weeks, we did not hope that this would be so effective, but it was. And we were very surprised and we are very proud that we have been able to develop this program that is helping so many people.

>> Help me a little further, though, one more step. What does it sound like?

>> The most important thing that I have to say here is that we only use natural instruments, due to our basic research that synthetic rhythms will cause the body rhythms that are already in danger of being not flexible enough, not adaptive enough, primarily in people with this kind of problem. So, natural instruments, natural voices. The architecture of the music is crucial. We have following parameters that we've learned from the biochemistry of the body, how many minutes does it take for adrenaline to set in and to slow down. So, it's something that we've also tried in animal models before we've applied it to human beings. And it's something that's very enchanting. It defies categorizations. It's not classical, it's not jazz, it's not world music, but it certainly has elements from all of these categories. We needed to find something that defied categories because we had to be able to get into the ears of people with a lot of different preferences for a lot of different musical styles. So, I think this is something that I was able to contribute because I've been in music production for so many years and it was my specialty to always find the music that was defining the borders of conventional categorizations, which I think, you know, is where the future of the music is anyway, you know. Who needs borders?

>> Well, I wish we could talk for another twenty minutes, another half hour, or four hours, but I'm afraid our time is up. Thank you so much. This has been another one of our Music and The Brain podcasts. I've been talking with Vera Brandes, Director of The Research Program for Music Medicine, Paracelsus Medical Private University, Salzburg, Austria. We'll all be following your career, following your success and eager to find out how music can solve problems and be good medicine. Thank you.

>> Thank you very much.