

# Music Thinking in Science

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## Abstract

Both introduction and especially conclusion tell of how amazingly *essential* music thinking is. After its delineation as dynamics of singing thinking, music thinking so delightfully sings life, power, thinking universal, synergy, wonderland, paradox, history, and silence, to culminate in kids so awesome.

## Keywords

Singing, Thinking, Kids, History, Joy, Pain, Science, Life

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## 1. Introduction

At a casual glance, the theme “music thinking” seems totally irrelevant to technical science. This paper gently and urgently warns us that such an impression is fatally mistaken. Music thinking is actually so essential to science that losing music thinking loses science itself. The reason is not far to seek at all. It is right before our nose.

Thus, the main issue this paper attempt to solve is addressing the relationship between music thinking and science or technology. Most people assume that music is for leisure and fun and science is completed through rigorous methodology. That is why people believe that music and science are either contradictory or unmatched. To address such assumption, this paper will clarify the role of music thinking in science. Looking at the role of music in scientific thinking sheds some light on how scientists shaped their most profound scientific ideas. Specifically, different from being intimately entangled with the scientific complexity, music can bring a uniquely aesthetic quality to scientific theories. Music can also facilitate the process of unifying various technical and scientific approaches. Specifically, when thinking about science in terms of images and intuitions, scientists can be benefitted by drawing directly from their experiences (e.g., listening, playing music, etc.) in music, and then later converting their new thoughts inspired by music into logic, words and science.

To date, unfortunately, scientific research focuses exclusively on techniques that are solely “means” after means after means. These means have no end in sight. Dewey’s well-known motto of pragmatism, “Ends are endless”, amounts to saying that, in the pragmatic world, an end that scientific techniques manage to achieve leads science further on to a further “end”, which in turn on its having achieved urges science to another end beyond *that*. Thus these series of “ends” amount to a series of means, one leading on to the next.

Pragmatic science is composed of a series of means, nothing else. Still, Dewey did not say “Means are endless” but “*Ends* are endless”. This fact tells us that pragmatic science has the eternal yearning hunger for “end” that is “goal” in its world of means. Sadly, for all that, “Ends are *endless*” tells of eternal void—“endless”—of the ultimate end that is capable of putting the pragmatic pursuit of science on its assured road toward its final goal all-assured.

This paper modestly yet daringly recommends to all scientific researchers that they are on their way to thriving together in harmony, and co-thriving in harmony in joy is “music thinking”. *This* is the ultimate goal of any and all scientific researches. This point—music thinking—is of course mere common sense writ conspicuous, although seldom heard or even noticed and so in need of careful elucidation.

It is in this way that this paper supplies to scientific research its counterweight quite *essential* and indispensable. Take this paper with its music thinking away from the busy technical world of science, and scientific research would be hopelessly lost in “ends as endless”, all means and no end in sight. No goal, no means. Rid of joyful music in thinking, scientific researches are mere drab technical desert perhaps not too many people would care. Now, it is time for us to happily delve into delightful music thinking as such. The conclusion at the end will briefly mention that music thinking is not only the goal of scientific thinking but also pervading its means—proving—as well.

As we know, life is full of heterogeneous combinations which intertwine into a complex world. Likewise, music thinking and science may also involve diverse ideas in singing, thinking, kids, history, joy, pain, science, and life. Specifically, music thinking could be expressed by singing. It also has the capacity to be expressed in abstract thinking. Kids and their development are exactly a journey toward music thinking. Thus, this paper uses mosaic and apparently disconnected ideas to present music thinking.

## 2. Music Thinking as Life

“What is your ‘music thinking’? Is it poetry? We already have poetry, music, and thinking. ‘Music thinking’ is an otiose clutter.” Well, in “music thinking” music thinks as thinking sings. Here, we think in music as we think with music and sing thinking. We sing as we think and think as we sing; we sing thinking and think singing. Such human activities are two in one and one in two aspects so delightful.

We can of course intend to purely poetize, just think, and simply sing, and do nothing else. But music thinking mixes them all and need not be any one of them. And so music thinking insists that we just comfortably live on, that any of these delights, music, thinking, or poetry, is tinged with any other joys of such human activity that renders us distinctly human, not clouds, pebbles, or trees.

“Is ‘music thinking’ a specific name of a specific kind of thinking?” The answer is both Yes and No. Yes, music thinking is a specific name of a specific mode of thinking that is not body thinking, concrete thinking, and story thinking in China, or analytical thinking in the West. After all, in order to call people’s attention to something, we must name that something.

But naming can separate. And so, No, music thinking is not a special name that names a special way of thinking different from these thinking-modes and separate from them. Instead, music thinking includes all these thinking-modes and typifies them as all expressing “music thinking”.

“Music thinking” sings bouncy fresh as a baby, not (always) professionally bouncing as a ballerina. Music thinking simply sings thinking, more clumsily and less clumsily, in poetry or not. Music thinking vitalizes humanity and is essential to us all. We ought to regard all thinking as music thinking vibrantly alive as children, ever singing ever playing intelligently. Therefore this paper is written on music thinking to alert us all to it as typifying our very living as human. And it is eagerly hoped that this paper itself sings music thinking to exhibit it, sometimes clumsily, sometimes less clumsily. This paper is about music thinking as it does music thinking, both at once.

### 3. Examples of Music Thinking

Music thinking sings all over. A voice comes, “What do you mean, ‘give me joy’? Joys are all over surrounding you. Joys should be constantly seeping *into* you! You are so silly!” This voice jolts me into joy. Not living joy in gratitude commits a crime against the joy of Mother Nature. Early to bed, early to rise, start you out on a great day in joy. Joy is all-power. Joy drives out fear. Thinking so is music thinking.

Simplicity attracts us into joy. Joy cannot help but give. Giving is divine (Acts 20:35), as receiving is joy human (Matthew 7:7). All this blessedly enables all, as magnificence of Mother Nature enables us to keep giving. This natural power is patient, driving out violence. These words think and sing music thinking to empower our days on and on, world without end.

### 4. Music Thinking as Power

Music thinks to deepen life as thinking sings to dance music. Music thinks in rhythm as thinking throbs musically to turn alive. Music thinking performs humanity in joys ineffable, empowering all life of all things. No music, no life. No thinking, music stops. All this obtains because Mother Nature is the music of all spheres all harmonious, where pain and violence turn dissonant in the music of

the cosmos. Pain wails elegy into music of joyful thinking. Joy chants antiphony in dialogical thinking musical. In such a way as this, life chants music thinking onward continuous.

What is not music thinking, if any, is sheer noise of brute indifference, unknown and unthinkable. Music thinking makes known what there is and what there happens to come to exist, singing alive. Music thinking chants forth all things whole and beautiful. “Whole and beautiful” is “cosmos”, and music thinking sings out the cosmos to sing the world. Nothing is thus more holistically beautiful than music thinking.

In this way, music thinking is an irresistible *power* that begins all things to yet to begin them. No wonder, music thinking lives the children who are the power to begin to yet to begin life. These kids constantly sing the music they constantly compose as they constantly play life. Their play is their music thinking growing, and what kid does not grow? Music thinking, children, growth, and life join singing, mutually synonymous.

Music involves tunes as thinking involves themes argued about. Bumping into one, as kids always bump into one another, induces all the rest. Leaving one stops all, and death arrives. Music thinking initiates these features jumping alive lustily on the move. Music thinking renders visible life in kids in joy. As no music stops, so no music thinking ceases and no kid-joy vanishes.

## 5. Music Thinking Universal

The entire cosmos vibrates with kid-resonance of music thinking that is logos musicale. Logos creates the universe. And “logos” is thinking thoroughly musical. Music thinking creates all things all-intelligible, as they all sing existence. Music thinking throbs throughout all things. Anger and enmity are sung away, as all violence and pain vanish in musical dissonance.

All things are now kid-fresh to jump begin to yet to begin, chanting thinking polyphonic dialoguing symphonic, in music thinking on and on, world without end. What joy! What elation jumping kid-alive! Joy is always incurably personal if not private, each different from all others. But at the same time joy is universal all over, all shared in person each privately. Music thinking pulls off such a stunt of joys universal and private! In such a universal and private way, music thinking softly reigns over the cosmos in tender sense and sensibility. Music thinking creates kid’s fresh Wonderland out of our daily routines.

The pursuit of novelty and wonder is a powerful driver of world-shaping technological change. Throughout history, music can make the cutting edge of innovation happen and increase people’s freshness and amusement. Music, such as Mozart (Weeks & Rushton, 2013), is just as delightful as the inventions it is. Music is also full of surprising stops along the journey from simple concepts to complex modern systems. Music is like creating kid’s Wonderland and leading us to the colorful and fresh thinking. In music, we enjoy novel amusements by being awakened by fresh ideas and inspired by child-like pure creativity.

Paradise now comes to pass even out of pain wailing. All things imaginable and unimaginable sing music thinking. Such singing is performed sincerely by each person, while each private singing joins all others to constitute private and universal joys all around.

Can you imagine a professional professor at Oxford of mathematics creating the beloved Alice walking with Mr. Frog and scolding the Queen of playing cards that Alice does not even understand, but loves anyway without reason but in rhyme? All things topsy-turvy quite unintelligible now sing into sensible order so kid-delightful, with music thinking spanking new! There is no music without thinking, and there is no thinking without music, as there is no Wonderland without Alice singing music thinking. Thanks to music thinking, Wonderland pervades in kid-joys bountiful.

## 6. Music Thinking as Synergy to Fit Us into Forgetting

Music thinking is intense synergy of the natural with the human. As ideas chant out of the visceral, they are shaped by excited human us into singing thinking. Both the singing and the thinking are performed by cooperation of the natural and the human in kid-joy. Such synergy is power invincible in unceasing excitement, continuing to vitalize all things. Music thinking is powerful synergy that stirs us up, soothes us down, and puts us at ease at home, exactly as music does. Heartfelt music thinking also validates, falsifies, and confirms, exactly as all thinking does.

In such a way as this, importantly, music thinking renders us self-fit to self-forget. Chuang Tzu the ancient bum in China casually declared 19/63-64, “Forgetting the foot is the fit of the shoe. Forgetting the waist is the fit of the belt”, and then nonchalantly continued, “Forgetting right-wrong is the fit of heart-mind. No inner change, no outer following, is the fit of times. Beginning at the fit without no-fit is the fit that forgets the fit.” (Graham, 1981; Mair, 1994; Watson, 1970). We must forget the fit of things fitting, and we will be fit always in joy ultimate.

Reading his description awakens us to the fact that our fitting enables us to conform to the actual world, all fitting self-forgotten. We must self-forget to be fit in joy. And then we can always begin to yet to begin all things so delightful. We now chant spontaneously all things in music thinking. Music thinking spontaneously guides us into self-fit, self-forgetting, and self-joy that forgets all joys.

“Wait, my friend. You said ‘we must forget.’ But no one can be *commanded* to forget. ‘Must forget’ is a contradiction.” Thank you for your astute observation, my pal. I agree with your point. To forget is spontaneous. To be commanded requires conscious effort to fulfill. We cannot consciously strive to unconsciously forget. What I mean is that we must *induce* forgetting, and inducement is a conscious endeavor. Inducement can go like this, positively and negatively.

*Positively*, when we desire a thing, we should remind us of so many other

things with which we are blessed. We forget them all, but they are what enable us to desire that additional thing. And we will be amazed and thankful for how much we are so fit among them as to forget them. Soon enough, we would even forget that specific thing we wanted. We then spontaneously manage that thing into one more thing we are fit to.

And here is a *negative* inducement of forgetting. Are you angry or disappointed? You must remind yourself of how many *other* persons with whom you are pleased, and how many *other* things with which you are satisfied. Now you realize how much you have forgotten all such other stuff so pleasant. Pleasure bespeaks “fit”; you have been so fit with those persons and things as to forget them all. Fit and forgetting go together to give you healthy joy.

Such fitting in forgetting of which you were reminded pleases you so much as to forget whatever feeling you have here now. You now naturally look forward to pleasant tomorrow when you can enjoy music, engage reading, appreciate favorite paintings, and shout at ballgame, and the list goes on about things you fit into to forget yourself. Now, where is your anger? Where is your disappointment? Nothing negative can be found anywhere in life.

To be so fit as to afford to forget performs music thinking in living routines. All in all, music thinking chants all that we are and all that we do in lyrical natural symphony fit snugly one into the other, so snugly as for us to forget they are fitted together. Such is music thinking spontaneously singing intelligible and sensible, and delightful and enthralling, and at the same time so inter-fitting as to be forgotten. Synergy forgets.

## 7. Music Thinking as Wonderland

Thus it is that Mother Nature is child Alice’s Wonderland where everything imaginable and unimaginable happen giggling. Here moron Charlie so happy plays with smart Tommy who can do anything, and Superman Peter Pan who can fly anywhere. All violence and daunting are laughed away. Music thinking is at home here at our foreground of living, and also our background milieu to support us unawares. In either function, music thinking arranges things to adjust us into self-fit to self-forget.

Music thinking is thus indispensable to human sanity, to render us fit as a fiddle to fiddle with kids so carefree at play. In all, music thinking tunes us into invincible kids all fit to all self-forgotten, so joyous without joy, in two ways. First, music thinking is music and thinking joined into one unified song to think on, lyrical and enchanting. Music thinking is the *singing* power of living humanity to incarnate Mother Nature.

And so, secondly, music thinking as part of Mother Nature is exciting because it flies far and wide in imagination and in unimaginable wonders of innocent Alice to compose her Wonderland. The unity of both musical function and thinking function results in singing *wonders* beyond all our common sense to pull us ahead beyond ourselves. This is music thinking so natural so stunning

and en-chanting enthralling. Music thinking performs and composes Alice's Wonderland full of wonders.

## 8. Paradox

But then, music thinking cannot avoid the problem of paradox. Paradox is self-opposition. Music thinking goes forward as music and thinking do, while self-opposition goes forward-and-backward *inside* itself, to have enmity inside one's household. Can you imagine having your own brother on whom you depend as your enemy? This "paradox" is a tough problem for music thinking, indeed.

Perhaps the clue here to resolution could be "dissonance" opposed to melody yet included in music and criticism raising problems yet included in thinking. "Dissonance" in music may parallel disproof and destructive criticism in thinking. As dissonance in music and disproof in thinking are necessary ingredients in music thinking, so paradox is a pesky trouble—but is it necessary?—in music thinking. What "paradox" adds is self-dissonance of self-disproof. How can music thinking sing such self-destructive self-contradiction? That is our problem. This is a tough one indeed.

Let us take a tangible example of paradox, the liar paradox. It is prominently displayed in Sorensen's casual survey of the paradox (Sorensen, 2003). The liar paradox destroys itself as it contradicts itself, by denying both affirmation and negation of "I am a liar."

The situation is rather crooked. If we say, "Yes we agree. He is a liar," then he is *not* a liar—honestly saying that he is a liar—as he says he is a liar. If we say, "O no, we disagree. He is no liar," then he must be lying about himself, for he said he is a liar. He is a liar, then. And so, either agreeing or disagreeing with him, he is always opposing what he says. Thus self-opposing, he destroys himself. This liar-paradox destroys itself. The paradox is quite devastating. All paradoxes are in this way lethal to thinking.

Sadly, Sorensen has never thought of such a devastating nature of paradox, and naively began his book by declaring that paradox is an "atom" that constitutes thinking-philosophy as number is an atom constitutive of mathematics. He never realizes that number safely composes mathematics while paradox destroys philosophy, and so his whole book on paradox destroys itself with philosophy—if paradox is its constitution.

"Now, can music thinking sing such a self-twisty situation of paradox?" Touching paradox destroys thinking, and so touching paradox destroys music thinking, we must admit. But oddly enough, music thinking has portrayed as above such self-destructive paradox, as Shakespeare has portrayed with his incomparable literature so many tragedies of life. Thus it is that music thinking has managed as above to "sing" lethal paradox in thinking that destroys even music thinking.

In addition, importantly, music thinking can destroy the destruction of para-

dox by confession and faith, owing to music thinking as singing existence of life. First, declaring “I am a liar” plunges its declaration into self-destructive liar-paradox, but *confessing* heartfelt to my anguish of “I am a liar”—as singing is sincere as arguing is sincere—the liar-paradox vanishes. Secondly, as I am trapped in pain of life-paradoxes and unknown religious conundrums, I must plunge into sheer faith to cling on to the hand that reaches out to me. My faith thus resolves “I am a liar.”

Now, looking back, we realize. All this has been delineated and sung out by music thinking so delightful. Singing shows joy. Music thinking sings joy private, universal, and historical. Jesus our glorious Joy says, “Tell no one” to his closest of disciples. And his “Don’t tell” has been spread worldwide for twenty centuries till today and beyond, in world history. History is as all-inclusive as it is all inescapable.

## 9. History

I have been talking about my life. “What is ‘my life’?” My life is of course made of the present going from one “now” to the next “now.” The present presently turns into an absence, as it turns into presence that passes away. Such absent presence is called “the past.” My life is a series of presences that continue to turn absent. It is thus that my life is neither present nor absent, and also both present and absent. My life I casually live on one day after another is actually quite strange and monstrous.

In a word, my life is historic, that is to say, “of historical significance,” whatever this odd phrase may mean. This “whatever” is what we do not know. This stuff unknown is called “history” a part of Mother Nature. History is my memory and my nostalgia that I am. I am constituted by history that I can never know, as I am “what I am” that I do not know.

Strangely, however, in contrast to elusive myself as both present and absent, things that surround me *stay* objectively out there, starkly confronting me quite identically, from one moment to the next. And yet, stranger yet, without myself perceiving these objective things, these things, however stable, simply vanish. To *be* something at all is to be perceived, as George Berkeley said—by me so elusive.

The stable objectivity of things surrounding me actually depends on me so subjectively elusive to exist. All these complex and strange inter-involvements between historical subjectivity of myself here and stark objectivity of things out there compose “history.” History has been quite a problem in our age dominated by objective science. We must briefly survey the history of controversy on history between the objective scientists and striving subjective historical thinkers. We will be impressed with dramatic naiveté of all this controversy, and its implications beyond it.

The West has had two conspicuous defenders of history against prevailing scientific objectivity; they are Dilthey and Collingwood. Dilthey belabors on “*verstehen*, understanding” as another type of knowing alongside objective knowledge. Collingwood insists on history as re-enactment of the drama of the

past (Tang, 2013). We are impressed with their brilliant desperate struggles under the thick shadows of proud scientific objectivity.

Both Dilthey and Collingwood try so hard to insert subjectivity into scientific objectivity, as science is proud of being objective, as emotively respectable. Naturally, both Dilthey and Collingwood had to accept “scientific objectivity” as valid and try desperately to fit “history” as somehow “subjective” into respectable “science” that is respectably “objective.”

Sadly, objective science of adults is all-powerless before children’s “Twinkle, twinkle, little star, how I wonder what you are!” as timelessly unanswerable question. This questioning is itself our eternal awe, around the timeless beauty “up the world so high”, absolutely enchanting. All adult physiological cosmology incredibly abstruse and complex is all-irrelevant to this childish questioning wonder, innocent, aesthetic, and heartfelt, and timeless.

We adults merely pour water onto the precious flower at roadside, never touching its invincible beauty. Billions of sparkling stars up the world so high are billions of so many kids’ “precious pebbles” they barter unceasing. Can you imagine kids bartering their precious pebbles sparkling up above the world so high? How could adult’s cosmology ever touch these kids’ awestruck bartering?

Billions of fires and swirling storms forever roar soundless spread out for billions light-years are horrendous monsters in faraway outer-space. All such adult-monsters are never the single child’s single “twinkle, twinkle, little star” to wonder at. These adult monster-storms have nothing to do with “stars” twinkling and awesome. Adult science is forever powerless to touch a single innocent child’s simple wonder at the twinkling stars so eternally beautiful.

Poor Dilthey and Collingwood failed to see how miserably failed natural science is to touch “the stars.” Both men desperately tried to mix stars and cosmology which are by nature never mixable. Naturally both men produced impossible entanglements as they themselves fall into these entanglements, on which no one can make any head or any tail. Both men got *themselves* involved in troubles they themselves knew not what they are.

All such self-invited pathetic troubles come from being enthralled with scientific objectivity, *within* whose merely objective world both these men pathetically and desperately try to establish their own objective-subjective “history.” The tragedy of fitting big into tiny is inevitable as it is self-invited. We remember poor Uzzah struck dead by trying in his goodwill to support God’s ark about to stumble down, for the ark needs no support (2 Samuel 6:6-7). We are so sorry for Dilthey and Collingwood, who were electrocuted by defending all-inclusive history (embracing science) in no need of defending at all.

Once sobered up out of being bewitched by proud science and its no less proud objectivity, the historian can now simply wham scientific objectivity on its head. History can simply say that insisting knowledge as objective needs a subject to insist on it. Such subjective insistence is part of history as all-inclusive, embracing the subject who insists on objectivity. History includes objectivity and the subject who advocates objectivity. All science is just a part of history through

and through, all over.

Still, history itself is neither exclusively subjective nor inclusively objective. And so, history is ubiquitous and personal, almighty meticulously. It is thus that history goes on forever, without beginning without ending, detailing meticulously each event significant (as no event is insignificant), while history itself thereby expands vastly cosmic. Again, “all-inclusion of history” spells “history as almighty”, with no leakage. Awesome indeed is such history that is music thinking jumping alive, back and forth, as history looks back in time to look forward in space and time.

Mind you. History is not only almighty but also excellent to produce excellence. Let me explain. We usually say that the humanities are vintage wine. The longer they are brewed, the richer they turn. “Brewing long” describes history, of course. So, history brews the humanities into excellence. Besides, it is the humanities that produce science and technology, and so sciences and the humanities are human scholarship in awesome heights and profound depths of history.

History almighty is all-capable of brewing excellence, and is itself all-excellent aristocracy—rule of the best—world without end to push all ahead into excellence always, in all sorts of ways among all sorts of things. Such constant push-ahead is called “history almighty all-excellent.” In addition, here is an explosively important reminder of what *excellence* is, as history.

Excellence never stays put. It explodes as dynamo of an ongoing process to better the best. “Ongoing process” spells history. Excellence is the history of being the deadly enemy of staying in plebeian mediocrity and below. This is to say that excellence is the deadly enemy of what is good, as excellence keeps excelling what is “best” here now. Excellence *continues* to excel, and continuation bespeaks history. Excellence is history.

Excellence explodes without end, breaking up the status quo of our best here now to go beyond it. Excellence explodes as the dynamo of self-excelling beyond and beyond. “Continuing process” indicates history all so explosive. And so, history itself *is* excellence ongoing, growing baby-alive. Are you surprised that ancient moldy history is alive as tender new babies? Let me explain further, and “further” is history, isn’t it?

Excellence is baby-growing ever alive, ever at the cutting edge of the forefront of living, always proud of beginning to yet to baby-begin, again and again. The baby loves repeating her own beginning without end. The baby is history proud of repeatedly beginning to baby-begin so tender, brittle and sharp. History is always baby-fresh exploding alive in excellence—excellence is alive exploding. Excellence is the baby always growing alive astounding. History is forever baby-fresh baby-growing excellent.

History is a baby always surprising. Have you noticed how sharp-witted the baby spitting out her remarks, ever so spontaneous surprising? The baby always shocks all those around, including her parents. The baby is forever tender and sharp, and brittle at the cutting edge of things all baby-beginning to yet to baby-begin, unmistakably to the baby. Such is history cutting events for the first in

the world. History is the baby ever fresh at the dawn of the world.

This baby panorama of history is simply stunning and awesome. History happens always with things happening quite alive. All things now present constantly shift into their next present; the shift is the happening alive. These all-shifts compose a totality of universal space-time continuum we call “history.” History is the totality alive, growing in a baby to begin to yet to begin a new totality of things.

In all this shift continuous, all things are constantly happening and constantly spreading, ever enriching themselves onward, and even their backward look at historical past deepens our understanding forward. As things shift, so history grows. Besides, such growth occurs by history rhyming backward and forward, Nero with Hitler, Hitler with Trump. History sings! History sings music thinking par excellence.

This totality of history never cheats, as the total is the stark reality with no room for duplicity. History honestly judges whatever erupts whenever it erupts. This judgment of history-as-totality is itself on the move and growing, world without end. History is stunning awesome as the growing kids who are awesome growing and cannot be stopped. History is music thinking of Mother Nature in kids jumping alive. History is Mother Nature, *natura naturans*, ever “naturing” ever giving birth to things. All this is called the *physis* erupting in all things as kids always growing wobbly onward (Peters, 1967). History is the awesome kid of music thinking.

Such fresh babies with all her things afresh around are in teething pain—beginning is a teething pain—barely beginning to yet to baby-begin, again and again. These baby-repetitions of beginnings are so precious. No wonder, babies revel in repetitions! Still, incredibly, while repeating themselves, whatever the babies say is a stupendous event happening for the first time since the world began.

The “first time” cuts baby-teeth in teething pain. History is a baby-totality of the human world, and totality never cheats as it ever grows in time, ever in teething pain. Such growing totality judges what takes place, and the judgment hurts the hearers as their teething pain. Such judgment is music thinking par excellence. Music thinking here is, incredibly, music in silence.

## 10. Music and Silence

To begin, music is concrete and alive, and all over. The violinist Yehudi Menuhin (1916-1998) hugs silence. The louder he sounds forth, the thicker the silence sings. In Violin and Viola Sonatas of Brahms and elsewhere, as in Bartok’s Violin Sonatas, he *stays soft* throughout, and the loud just comes out precisely in his soft silence. And no matter how fast and loud he goes on, he keeps going slowly and silently. Such is his power of silence that goes loud in his soft, as he goes fast in his slow, all so deeply and naturally.

Secondly, he even *misses* notes to free-ride on tunes. Missing notes makes notes fabulously *alive*, as no one misses notes again in *that* way in that place.

Mistakes are made anew afresh, and so these “mistakes” perform new beauty afresh. Missing notes vigorously plays the “grassy style 草書” so freely alive in Chinese calligraphy singing. Menuhin is a grassy stylist par excellence.

Menuhin is deep and rich in Bela Bartok’s Violin Sonatas. Without a mistake, Menuhin wails Bartok who wails. Bartok has no melody but rhythm, and so he never tires us. And thus Bartok wails afresh. Menuhin fits well also with Brahms’ Violin and Viola Sonatas. Brahms in his tangy tone intones lonely beauty that intensely loves the Schumann couple and the children on the street. Menuhin has also recorded the complete Bach’s Solo Violin three times, Beethoven’s Violin Concerto six times, and his Violin Sonatas three times. His silent resonance alive in all this haunts me.

Thirdly, we can cry without sorrow. Crying can make mistakes, to as-if weep with me, and I wail into his chanting. Our inter-entrance throbs in us in music. We remember pain, and forget joy. Sunny accurate musicians are a dime a dozen all smiling. These accurate people sing pretty sound-husk, empty of music-inside.

We are hollowed out in joyous accuracy, hit with “pretty outside, nothing inside”, drenched in their sunny accuracy in casual joy. Sorrow wins true friends so few. Joyous fair-weather wins no true friends. In wailing music, Menuhin and I carve each into the other, echoing all over. Haunting echoes can never forget. His music logic in music thinking structures me this wailing way of Menuhin all heartfelt, all-unforgettable.

Fourth, weeping together can only be wailed out in music on the carry-able violin, bare and single-stringed. Jews and gypsies wail on their violins they hug around with, as they wander aimlessly all over—to move us deeply. These peoples sing extempore, deep into one another. Thus they cannot forget each other, to vanish one into the other on the soil of their homeland that is nowhere. They are soiled, all dusty, to sing their soil in their souls wherever they roam. Their soiled earth soars up to the heavens as they sing lustily their soiled souls here now anywhere they happen to tarry—that is their *homeland*.

Such is how these musical peoples wail out their soil everywhere nowhere, in their souls. This is how they continue praising their soiled homeland nowhere everywhere. These musical peoples are homelessly autochthonous, deeply soiled everywhere. They have no home, so everywhere is their homeland. That is why they sing to chant their “homeland” everywhere. How moving such chanting is to all our timeless nostalgia so autochthonous! We all are homeless earth-free and so forever earth-bound. All this eternal nostalgia deserves chanting sky-high, ocean-vast.

In Menuhin the Jew, our soil in our soul keeps wailing out our soil-nostalgia in silent chanting, praising the harmony of all soiled spheres unspoiled unsoiled. All earth is fair smiling at floating clouds, chirped silence in tiny invisible birds. Their cosmic music swirls eternal. Their timeless music melts these clouds and birds with us all, silently into deep music invisible soil-less—and all soiled complete. These wandering peoples with us chant music of the fair earth and deep

blue skies. They are all ours, as we are all theirs.

Fifth, all such deep feelings are wailed out as silent music of harmonious spheres, our homeless homeland. We naturally sing our universe our spheres. Our music of the spheres makes sense through all silent time. This sense is music logic that keeps irresistibly singing music thinking. We all homeless sing in deep silent feelings such homeland our universe. Our singing makes cosmic sense. Music is sensible, as it is bodily singing and intelligibly significant—as our en-souled music thinking.

Art is logic supreme. Music is the art of time. And so, music is time logic par excellence, the universal and personal music thinking. All this while, Menuhin has been with us all, as he is constantly wailing silence into our souls. He in silence never attacks loudly but *lets* his piano, orchestra, and audience attack the tunes. His “let attack” is his silence to draw us in. Life is short. Art is long in long silence softly wailed out by Menuhin’s music of silence.

And so, these five aspects—in silence as music, mistake as silence, pain wailing, simple violin wailing, roaming homeless—present silence in music. In all this, Menuhin’s wailing silence hums aloud a melody, and then another melody, on and on. His continual humming in silence calms us at home into our self that is our natural homeland. Being at home, we can now gently welcome whatever things that keep coming in, as they hum themselves into us, one at a time, two at a time, and so on, in their own silent music. We now *sing* the world in silence. We are now the world as the world is our home that is our spontaneous self. All now hum on in casual silence in joy.

All this while, Menuhin’s silence keeps humming with us into us, smiling and nodding in silence of understanding. We call such inter-humming “listening to music” sung by his silent music thinking. Such silent happiness hums the harmonious melodies of the spheres in the heavens to echo all over down here now on our silent ground. No one is listening, but all things are turning alive humming joy, and all this while invisible tiny birds are chirping silence among the floating clouds. Nothing is the matter. Everything is as it is; all are humming silence in joy.

The world is calm. Here everything common hums alive, as all pebbles sing silence. Pebbles echo the grass as children jump on grass. All things sing the world, calm and alive, all in noisy silence that keeps Granny smiling in her wrinkled silence. Such echo is heavens chirping silent earth. O such silent happiness all over!

O such paradise all-echoing all, in reciprocal humming in joy so hushed! Embraced in all such noisy silent world, we cannot help but clap our hands to stamp out feet, all totally unawares. We now live music hummed out by Menuhin’s silence that also taps the rhythm of silence, all throbbing with heartbeats of things among the happy pebbles and chirping clouds. All this is music all alive and all inclusive. Music thinking throbs and breathes each life of each thing, grass and pebble and child, while clouds chirp silence in Menuhin wailing silence, in sorrow and outside sorrow, all happily together, all guided by invincible children.

## 11. Children

Believe it or not, children are always here guiding us with silent music thinking as above described. We remember how the august adult Confucius wisely *followed* a baby-small child who pounded on an empty pot as he casually walked on (Liu, 1996), not minding whereto he toddled. The image of big Confucius and tiny child sticks to us here now. Confucius was intuitively aware silently.

Following the child follows Mother Nature in music thinking tapping the pot rhythm, and nothing is more important than following Mother Nature as we follow the casual child in music thinking tapping an empty pot. Following the child fulfills our very life as such, no ifs, no buts. Following the spontaneous child going wherever she wants is actually an earthshaking event to shape all the spheres.

“What are the features that make such tiny insignificant children so important? They need us adult to parent them to nurture their growth out of immaturity. They learn from us, not we from them.” Now this adult disdain is precisely the reason why we must learn from the children so pure so valuable. Observant elucidations of “how precious the children are” are urgently needed by us proud adults. Adult disdain cites the child’s immaturity, need to grow out of it, need to depend on our parenting and nurture, need to learn from us, and the like. We shall cite these childish features and more to show how child-precious precisely these childish features are—to teach us adults into being true adults, not disdainful but ever authentically humane.

As a child is being spanked, he never runs away but clings on to Mom even tighter and keeps crying, “Mama! Mama!” Mom simply has to throw away her rod and hug him back in tears, saying, “Don’t do it again, OK? You’ll get hurt, dear.” Such is absolute trust of the child even through pain. We adults have lost this childish trust so very precious. Losing this trust turns us duplicitous into human trash.

Childish trust so unconditional comes from relentless devotion to us his caretakers. Childish devotion in turn originates in heartfelt awareness of immaturity. Immaturity is the mother of precious trust and devotion. And who is not immature? Losing this childish immaturity, we get hardened out of vibrant freshness and stop growing up. Ceasing to grow, we cease to be alive. Childish immaturity, trust and devotion are life itself, as trustful devotion arises out of heartfelt awareness of immaturity shown in needs. If trust and devotion are valuable, needs in immaturity are indispensable. Awareness of immaturity in needs renders us alive flexuous, not ossified dead. Let us look at this crucial fact up close.

Needs as immaturity and needs to grow are the basic accompaniments of being *alive as vibrant babies*. Once we are out of these needs, we are out of life. These needs keep us jumping alive as kids, and who can afford to lose such tender childish liveliness? This is why kids in enormously chock-full of needs are full of peppy life. Importantly, these kids are heartily *aware* of their needs. Their awareness keeps them alive so young—who does not want to be vibrantly young

forever?—constantly and overwhelmingly, as if nothing is the matter, for it is children’s sole and exclusive privilege to be young and soft every single day.

And their awareness-of-needs attracts us irresistibly into serving them, always. And our serving them in turn gives to us ourselves their vibrant life forever tender and happy. Needs, joy, and being alive imply one another—and all are always happily vibrant. When any one happens, both others come in. Lacking in any one of them, and the other two vanish. We join kids to join their naughty wrecks to join their life-vibrancy. All this originates in kid’s own awareness of their immaturity. Immaturity is the mother that gives birth to all living kid-fresh and vibrant.

As we sleep like a baby, not like an adult, so we must be alive like a baby, never like an adult—and then all of us would turn so very happy and spanking new as a baby. The kid-play then follows to originate all our living, devil may care. This kid-play in turn originates all joys all over. All of us are now all-kids in the hilarious dreamland of Wonderland each moment of our hilarious days.

When pain arrives out of nowhere, we the kids shamelessly wail out, and our Mother Nature rushes in to bind our wounds, with mumbo-jumbo of medicine about which we could not care less, as no kid anywhere would even care to understand such dull stuff too esoteric for them all. And “could not care less” is the essence of kid-health, devil may care.

It is thus that all kids are ever at play, in joy and in pain, constantly as their random imagination commands. Their play is ever alive with unheard-of flights of Peter Pan’s imaginations, all thanks to their constant awareness of enormous needs. After all, kids are by definition immature; immaturity *is* kid. And precisely their immaturity pushes them onward into constant playful joys.

These “despicably immature” kids are happy because they completely entrust their needs to the adult caretakers, whom they unconditionally revere as their perfect gods. Their inherent awareness of immaturity induces their completely pure sincerity, trust, and reverence. Such awesome purity out of their immaturity simply awes us indeed, for we-so-mature lack all such treasures no money of maturity can buy.

No wonder, the all-perfect divine Kingdom simply belongs *to* these immature and chocolate-dirty babies who could not care less about such awesome Kingdom, for they do not understand what it is. They are just forever growing in trustful learning, as they keep playing with even their needs. They in joy are all-powerful, ever at play. Absolutely no one can conquer them, for no one can even think of touching these powerless kids, much less conquering such soiled happy kids so immature and so much in need of us adults. “Need all-powerless” conquers all-enmity so proud.

These kids are so soiled a bundle of awesome joys that we adults cannot even understand. We never know what they are laughing about. Still, their joyous laughers are so contagious and so powerful that the entire divine Kingdom sky-high belongs to them unawares. Divine Kingdom belongs to them because they so immature *are* divinely immature! They are so soiled so “primitive” as to

attract Granny to keep her wrinkled smiles young, ever dancing alive, ever as these kids!

In fact, their soiled immaturity enables them to get away with any childish pranks they naughtily concoct *every* once in a while. Granny keeps shaking her head as she cannot help but continue to smile—and even dream about their pranks at night. These dreams keep her afresh alive and spanking novel and young. Their pranks keep her alive to live long, ever shaking her smiling head and heart.

Up in heaven, God our Father is completely sold to this chocolate-dirty kid-immaturity that haunts every nook and corner of kid's divinity, and no one dares to touch divinity of any sort, especially of such strangely tender sort. Just to imagine and write on these soiled carefree kids gives us enormous joys so powerful and so unlimited! Looking up to them with total admiration as they look up to us—how could immature dirty kids pull off such stunt!—we inevitably come to look down on *our* own disdain of them. Our disdain shows itself so abject so “dirty” indeed that we cannot stand it anymore.

Soiled immaturity of these kids so casual and self-forgotten is the Queen Almighty who reigns over us all, as if nothing is the matter, for kids could not care less about such abstruse stuff so boring. They would sooner than later rush out to play all dirty-carefree and all totally forgotten! All praises be to their dirty immaturity! Mother Nature is smiling who softly reigns over all her soiled babies, all her hugged treasures.

All this while, we all kids are playing together, often fighting and often laughing—world without end in all spheres dissonant and harmonious, all topsy-turvy as kids at play. Mother Nature is made of soiled babies in need of our care, always! And it is our honor in Mother Nature to care for babies so helpless, so trustful, and so vibrant. Caring for them so helpless, we are rewarded with their pure and beautiful devotion all-ultimate so complete so precious!

This precious point of kid-immaturity cannot be stressed enough. Kids unconditionally need us, for they realize heartfelt that they are immature. Profound awareness of immaturity that breeds absolute devotion and reverence for their caretakers deeply moves our own hearts and soul in turn. Their devotion moves the mountains of their caretakers. Their unconditional devotion so natural and so mater-of-fact is absolutely powerful and infinitely fecund.

We disdainful adults have none of such “kid-stuff” that we snobbishly despise. Our snobbish disdain exposes how poverty-stricken we ourselves are, being so proud. Shame on us! Kids with their beautiful kid-stuff are so wealthy, while we in our proud disdain are so miserably poverty-stricken. Our silly adult-pride is our tattered cover that fails to cover us at all. We are so ashamed—so miserably ashamed of our silly adult pride in our silly adult-disdain.

Kids trust us so absolutely that they entrust *all* their stuff of living to us. Such entrusting trust is so total, so ultimate, and so natural as to move the whole world. “Mom knows! Right, Mom?” and they run out and play, forgetting all, entrusting all to Mom. And Mom simply picks up what they left behind, all

half-broken, all so precious. In such a way as this, these kids simply overwhelm us as they enrich their Mom each moment.

Their immaturity gives us their tremendous wealth that is the absolute treasure of smiling Mother Nature, so motherly so warm behind all kids who forget their Mom in whom they totally dwell and live. All this while, kids could not care less about all such mumbo-jumbos of “treasures” mentioned here, for “Mom knows”! Mom takes care of “such stuff” all beyond their wits. That is why they are so happy, come what may.

Do we supposedly all grown-up want to be “authentic”? Kids *are* already always authentic. Kids never cheat; they just pretend to cheat! Ha! Do we want to be alive as a rose-bulb about to blossom? We had better follow Mother Nature smiling behind the rose-bulb of children so dirty and casual—casual is dirty—so beautiful, still waiting to open out. The beauty of it here in the kids is that the rose-bud of the kid is “waiting” yet without waiting at all, but just at play all-forgotten.

Kids at play just forget it all, and even “it all” is beyond their care! Kids at play is cordoned off sacred, and can never be disturbed. And all this kid-stuff so soiled so casual and so carefree hits precisely at the bull’s eye of what *precious* Mother Nature is and what it means to sing music-thinking of Mother Nature. Playing is the rub of the matter here. Playing is carefree, and only being carefree always hits the matter on its bull’s eye.

“Do we proud adults so proud in our proud austerity want to become truly our proud selves?” Wow! What a deep adult-query this is! Kids then come and noisily invite us to join in their casual play, and no question is to be asked. Their casual invitation is unconditional. We beg them off. We still want solemnly to follow our “innate Mother Nature.” How do we follow her? Now, only we silly adults raise all such silly queries. The more seriously we enquire, the farther away we get lost from the serious point we want.

Look! Did you proud adult notice this common fact? No one follows Mom; Mom follows her babies. Kids never follow Mom! And such kids not-following Mom do actually follow Mom, precisely. How is it so? “Mom!” is always on tip of kids’ tongues, yet all that shout for Mom is forgotten while kids are at play, for Mom takes so good a care of kids that kids can afford to forget Mom—without forgetting Mom—to play heartfelt, devil may care.

And now even the devil is allowed to join kids at play—by kids at play. Kids at play love devil as they play, devil may care! “Playing with kids at play” de-fangs all poisons of the devil, for poison does not play, and so no poison would work on kids at play. No poison can hurt kids, as Lao Tzu keeps saying in his *Tao Te Ching*. Kids are Lao Tzu’s godly teachers and his divine panacea!

All casual kids are divine so awesome. And the divinity of the kids is displayed precisely in kids at play, devil may care. To play is to do *whatever* I want, even grabbing ever fighting, and ever laughing together. To follow Mother Nature follows such kids who never follow Mom while following Mom every minute at their play, all-forgotten yet never Mom-forgotten. Mom Nature is forever with

kids at play all-forgotten who we are.

We simply must follow such kids self-forgotten and Mom-not-not-cared. Mom is not cared about because kids at play even forget themselves. How could anyone forget oneself? How could any kid forget Mom? Kids do, believe it or not! How could we follow forgetting as kids do? Just follow kids so carefree, devil may care! ‘Following’ is the magic here. ‘Following’ is “monkey see, monkey do.” Just do what kids do. Following such kids so soiled so carefree, and so all-forgotten, follows Mother Nature at play with kids.

“How do we follow kids? Kids are at play, and no one can follow anyone at play so random so arbitrary.” Here we go again, you silly adult. Go ask kids at play. “O, no. Kids cannot be asked while at play.” All right, then. Just jump in and join kids at play. Don’t you know how to play? Never mind, then. Just join in. Just joining kids follows Mother Nature, like it or not. “Just” is kid’s amazing four-lettered word so kid-magical, for I assure you with kid-solemnity here! You *will* like it, when you just join the kids, for joining kids is coming home to yourself. Self-homing kid-established you into you.

All this self-homing constantly begins our self spanking new. Kids daily begin music thinking that reigns over all things, ever kid-fresh throughout all harmonious spheres through thick and thin, wailing pain and shouting joys. Kids are themselves the prime jumping music thinking ever in joys, absolutely invincible. Music thinking thinks in singing kid-joy all around.

It is sheer incurable insanity of anyone then who, for whatever reason that we never can know, refuses to sing joyous music thinking absolutely kid-pervasive, homo-cosmic. Music thinking is sheer joys forever irresistible, for who would even care to think of resisting joy of any sort? Who would have imagined how music thinking someone refused is precisely priceless joys of all spheres?

Mind you. Music thinking is sheer joy of all things. Even ordinary green tea we take so much for granted is pure poetry of music thinking singing longevity of health of *all* things, with fragrance high and graceful perfuming all spheres (Mair & Hoh, 2009). Drink a cup of green tea, my friend. You would surely taste the joy of music thinking all over everywhere! You would never have imagined how high ultimate music thinking is fragrant even in the common green tea available everywhere.

Can you imagine how music thinking so high and graceful is perfumed throughout in all world history even in the common green tea we can get anywhere in any grocery store? Music thinking *is* a cup of common green tea going down into us viscerally to soothe us ineffably, to convince us of ubiquitous music thinking tea-perfuming all spheres.

Tea so common ubiquitously grounds our high graceful “music thinking” solidly on all spheres from so high up invisible to down here among the pebbles. Common tea thus ennobles everything common and daily ordinary, all the way up to the ultimate all over, totally ineffable. Of course, no one would even care to argue about common tea, available at any grocery store. Likewise, no one anywhere is capable of disputing over the high value of “music thinking” all over in

the common cosmos. Ordinary tea with its power of being so ordinary silences all of us on the ultimate value of “music thinking” so common and so ubiquitous.

Taken together, the main contributions of this research and paper include three points. First, this paper contributes to the literature that music thinking and science are not contradictory or conflicted to each other. In contrast, music thinking can inspire scientists to have more creative explorations (Johnson, 2017; Weeks & Rushton, 2013). Second, as the technology introduces the innovative advancement on our world such as social media, music is actually moving to a different level. High technology does not destroy music; instead, technology may bring a new dimension to music. Technology may also stimulate music thinking. Thus, music thinking and science actually help and stimulate each other to a higher level.

## 12. Conclusion

After all is said on, probed into, and argued for music thinking, what needs to be stressed is simple. Basics are simple. It is this. No goal, no means. No music, no science. Scientific researchers do well to enjoy humming along antiphonal being-music constantly buzzing in their laboratories. All scientists must sing their researches. Their researches must be music thinking. Music thinking in joyful singing is what all these scientists are doing researches *for*.

In addition, interestingly, when faced with two equally valid arguments and proofs, we constantly choose the elegant one. Elegance-dynamics is at work even while proving goes on. Proving is science at work as means. Elegance-dynamics is music thinking. And so, music thinking is at work in science as means. Thus music thinking pervades science at work as means, *while* pervades science as it works toward its goal. Science sings music thinking in *all* its performances, both as its means and toward its goal. Music thinking pervades science as its part and parcel.

Music thinking sings science in all its researches. We can claim that science engages music therapy existential and homo-cosmic. And such music as therapy is itself music thinking at work in sheer joy of existence. And so, we must remember. “Science and music thinking inter-pervading” constitutes sheer joys of existence as such, huddled so dearly in Mother Nature as she is served by musical science. Our life must joy-sing the threefold unity of music, thinking, and science.

This paper discusses how amazingly *essential* music thinking is. Music thinking, in addition to entertaining our life, is so critical for science and stimulate the creativity in technology. This relationship between music thinking and science can be highlighted by Einstein’s story. Far more than a diversion or hobby, music thinking was such a part of the man that it seems to have played a role in his scientific working processes. Moreover, Einstein’s second wife Elsa told the story of him one day appearing totally lost in thought, wandering to the piano and playing for half an hour while intermittently jotting down notes. Einstein himself

even said “*I live my daydreams in music. I see my life in terms of music.*” Thus, music thinking is indispensable in our science and world.

This paper also has two limitations. One, to date, this paper is one of the first papers to scholarly explore the relationship between music thinking and science, so it is possible that this paper is limited in including sufficient empirical studies to support the positive relationship between music thinking and science. Two, this paper focuses on clarifying current stereotypes and misunderstanding against the relationship between music thinking and science, so it does not propose its own theory to articulate this relationship.

Importantly, the future studies can elaborate how science may impact on music thinking. If music thinking can stimulate science, the future studies can explore whether science can inspire music thinking to a new level.

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