

Dewey and Coltrane: A Study on Rhythm and Growth

Jared Kemling

Southern Illinois University

Music, μουσική, *mousike*: an art of the muses, an expression of inspiration from on high, from the Gods. In popular culture, we identify the muses primarily with the creative arts: poetry, music, and so on. If an artist finds themselves lacking inspiration, they seek out a “muse,” calling out to invoke the presence of one of these elusive goddesses. And yet, this process by which the muse provides “inspiration” remains vague (unsurprisingly, given its mythic explanation). What can we say of this inspiration? What is this strange gift bestowed upon the artist? Is it willpower, the motivation to struggle onward in the face of inadequacy? Is it a vision of “the beautiful”? Or is it knowledge? If knowledge, what type? Does the muse come bearing *episteme* or *techne*? Remember that the muses governed not just the arts but also the sciences; or perhaps better to say that the Greeks made much less distinction between these two (science and art) than is common today. What happens to music (the still popular domain of inspiration) as it moves closer to the “quest for knowledge” (that has lost the touch of the muses)? Even more interestingly, what happens to the quest for knowledge when it moves closer to music? Is there still room for a muse in the work of the intellect? Do we as educators need to consider the muse more seriously in our “knowledge” work? If so, what *wisdom* can we draw from the musical world — how do we get back in touch with the muse of wisdom?

In this essay, I will use the work of John Dewey to consider the intersection of music and education. I will put forward two thematic elements that I believe best highlight this intersection: (1) rhythm and (2) growth. These particular thematic threads are not unique to this essay, of course. They appear in various forms throughout the history of philosophy: identity and difference, same and other, home and alien, Apollonian and Dionysian, *stasis* and *phusis*, and so on. Given the fundamental nature of these concepts, then, it should not be surprising that we might find them present in both music and education. And yet, there is something constitutive about rhythm and growth for *both* music and education. The goal of the essay, then, is to see if we can reclaim a more robust sense of both music and education, a sense that might have held for the Greeks yet seems counterintuitive today. Put differently, the goal of this essay is to understand the “rhythm” of intelligent inquiry through the analogy of musical rhythm and also (to a lesser extent) to understand the “growth” of music through the analogy of education. If John Dewey will provide the theoretical framework on which I will “hang” this essay, then another “John” will provide my practical frame: John Coltrane. Through their work I hope to emphasize the importance of *both* rhythm and growth in *both* music and education, thus bringing music and education into a closer (and hopefully fruitful) proximity.

THE DANGERS IN OBJECTIFYING GROWTH

When it is said that education is development, everything depends upon how development is conceived. Our net conclusion is that life is development, and that developing, growing, is

life. Translated into its educational equivalents, this means (i) that the educational process has no end beyond itself; it is its own end; and that (ii) the educational process is one of continual reorganizing, reconstructing, transforming.¹

Dewey tells us that life is “development,” which is to say that life is growth. Yet he also tells us that education is development, meaning that education is growth and that education is life. In fact, I do not think it would be unfair to say that all of Dewey’s philosophy is concerned with the *process* of growth. Whether you call it education, experience, democracy, or inquiry, growth ends up being the central concern. What, then, are we to do with this process of growth that Dewey finds so paramount? How should we understand growth? It is important to remember here that growth is a process; it is not an object. Why should this be important in our quest to understand growth? What we generally mean by “understanding” is that something that is indeterminate has been made determinate. By determination, I mean that process by which we take a vague or indeterminate experience and bring it into relation with that which is already understood (determinate). This process of identifying and establishing relations is all that we mean by understanding: it is the process of identifying unities and holding those unities in relation to one another so that the whole (which changes depending upon the project at hand) might be understood by means of its parts.

Perhaps the most common means of determination is “objectification,” which, for the purposes of this essay, I use to mean determination in terms of space. Spatial relationships primarily take the forms of side-by-sidedness or container/contained. Objects display a part-whole relationship that is primarily (if not entirely) spatial; thus, objects are determined by the fact that they are “here” in space, which places them in a side-by-side relational nexus with all other spatial objects. Objects could be said to occupy either “physical” space (as material object) or “mental” space (as conceptual object), but the method of holding the objects apart in space remains the same. Objects, by their very nature as held apart via “spatial” relations, are eternal, which is to say atemporal or nontemporal. Objects are related in space, but not in time; “objects” as such are a poor means of studying temporal relations.

Hopefully, the problem is becoming clear: growth calls for a certain mode of understanding or determination that does not treat it simply as an object. Why? Because the essence of growth seems to lie in the fact that it is a *process* — it is fundamentally temporal. Thus, any attempt to understand growth as an object of knowledge will be ultimately deficient. A chief example of attempts to objectify growth can be found in those who seek teleological understandings of growth, those that conceive of growth as directed towards some object. For example, it is possible to understand growth as a movement towards, say, citizenship, to take an example relevant to Dewey. Thus, we take a definite object, citizenship, which is understood in a certain nexus of relations to other objects, and we imply that growth is that which is “not citizen” and may one day “become citizen.” In other words, growth becomes understood as any object that is not-citizen but that is not logically incompatible with the object citizen. Thus, rather than understanding growth as a process, we have focused our attention on some object (a child, let us say) that is identified as “not-citizen.” The

actual process by which a child should *become* a citizen is forgotten and glossed over; our attention merely falls to two objects — child and citizen — and the negative relation between them. This is why Dewey will speak of the “false idea of growth or development — that it is a movement toward a fixed goal.”²

Growth *in itself* is the end of education; or, rather, growth in itself *is* education. Education is not “growth towards citizenship” nor is it “growth towards intelligence,” or any other similar pairing. Instead of speaking of growth in this way, if we are to understand growth as a process and not as an object, is the common structure of *all* such pairings. What happens in the *movement* or growth towards citizenship or intelligence — what happens in growth *qua* growth. Only when we come to this point will we truly understand education as Dewey means it (or even life as Dewey means it).

RHYTHM AS DETERMINATE PROCESS

All interactions that effect stability and order in the whirling flux of change are rhythms. There is ebb and flow, systole and diastole: ordered change. The latter moves within bounds. To overpass the limits that are set is destruction and death, out of which, however, new rhythms are built up.³

How then are we to make growth determinate in a nonspatial way, in a way that does not eliminate the temporal from it in our understanding? That is the task that we must set ourselves and at least attempt a beginning here (as the full effort is beyond the scope of the present endeavor). Remember that any method of determination (bringing to understanding) will involve seeing the qualitative whole as a system of related parts; this will be true for any experience that has “meaning” as Dewey defines it.⁴ Before we make the process of growth determinate, it might be helpful to give a general example of how a *process* might be made determinate. I believe that “rhythm” offers us a useful case study in which a process is available to the understanding without recourse to a spatial metaphor.

If we set rhythm as the whole that we are examining, then it seems that the appropriate parts would be expressed by “beats”; that is, rhythm is understood as a specific grouping of beats that feature particular relations amongst themselves. Thus, a certain experience becomes rhythmic as soon as the active participant begins to experience along lines of “beats” and “not-beats.” (I will bracket, for the purposes of this essay, the fact that this particular process of identification of similitude, whether as ideal division or real perception, and when we do so, we are left with an experience that is “given” in terms of beats and not-beats.) The experience does not necessarily need to be given in rhythmic divisions, of course. Even a simple song could also be divided along lines of musical notes, lyrical narrative, and so on. However, whenever the experience is given as composed of beats and not-beats, we are treating the experience as rhythmic. We should also keep in mind that “beat” is not necessarily an explicit unit of division. One person may beat the same song in two while another beats in four, for example. The beat may be longer or shorter, sharper or duller, and so forth. It may be identified with notes or words, or it may not. What matters is that the beat is a unit — even if a changing one — that is fundamentally *temporal*. Beats are not related to one another by space, although they can be represented and notated spatially; they are related by time. Thus, rhythmic

beats represent a certain divisibility of the temporal. Whereas objects in space are determined by their “hereness,” beats are made determinate by their “newness”; they have a durational thickness in the same way that material objects are understood to have a spatial thickness.

However, the beat itself is not the process. The rhythm (the whole) is the process, the beat is merely the unit of process. It is the way in which the process is divided so that we may come to “understand” the process as meaningful. You experience the beating of a drum: as you listen you begin to realize that there is a certain pattern to the sound, rather than complete chaos. This recognition of pattern is the first step towards understanding or determination. As you listen, you realize that the vague pattern that you experience might be best expressed in terms of beats, and you begin to divide the experience in your mind: *duh duh duh, duh duh duh, da da*. The experience becomes a nexus of interrelated “nows”: with any one particular beat only having meaning when held in relation with that which came before and that which you anticipate coming soon. An isolated banging of the drum is not truly a “beat” unless it is strung together in experience with other “bangings” in a qualitatively whole experience that is “rhythmic.”

So, if the beat is not itself the process, it seems that if we consider a rhythm solely in terms of beats, we will have lost something vital in our analysis — and this is so. Fortunately, our experience (as mediated by the understanding) is *not* composed solely of beats, but also by the relations between those beats. These relations might be numerous in type, but essentially they are likely to be temporal rather than spatial. Thus, we are closer to understanding the process with such relational concepts as “after” and “before” than we would be with relations such as “inside” or “beside.” It should also be noted that since the rhythm is a qualitative whole that is explained in terms of related beats, the quality or “feel” of the rhythm as a whole is altered accordingly as beats are altered, or as the relations between beats are altered. Thus the same four beats are rhythmically variant depending on which beat a stress might fall: a 4/4 bar with an accent on one and three is quite rhythmically different from a 4/4 bar that is accented on the off-beats. Likewise, a 4/4 bar at a higher tempo — an alteration in the relation between beats — is rhythmically distinct from a 4/4 bar taken at a lower tempo.

Hopefully, this example has demonstrated how experiences can be made determinate along temporal, rather than spatial, lines. We can still analyze a whole experience into parts while retaining the processual nature of the experience — as long as we recognize that the *relations* of those parts need to be understood temporally rather than spatially. An experience can be modelled for the understanding in rhythmic terms (for example, as dynamic oscillations, qualitative swellings, beats, and so on) in such a way that we do not need to pull the concept apart spatially. The “tick-tock” of a clock serves to divide experience just as well as (although differently from) the image of the pendulum swinging through space.

GROWTH AS RHYTHM

As an organism increases in complexity, the rhythms of struggle and consummation in its relation to its environment are varied and prolonged, and they come to include within them-

selves an endless variety of sub-rhythms. The designs of living are widened and enriched. Fulfillment is more massive and more subtly shaded.⁵

So we have seen how it might be possible for an indeterminate experience to be made understandable (determinate) without the use of spatial modelling, or, in other words, how we might begin to think about process without turning it into an atemporal image of parts suspended in space (as child/citizen, and so on). Can this same rhythmic analysis be fruitfully applied to the experience of growth? I think that it can. The goal will be to identify a particular unit that we might use to divide growth for the purpose of understanding. Whichever unit we choose must maintain relations to other units of its type that can be expressed in temporal terms, rather than spatial. If this is so, we will know that we have settled upon a processual unit rather than a spatial unit. So what then should we call the unit of growth?

Dewey defines education as follows: “It is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience.”⁶ Given that Dewey has already linked education with growth, I think that we can take this as a fair description of what Dewey thinks is happening in the process of growing. Can we identify a unit of division from this? Although he does not say so explicitly in *Democracy and Education*, I think that it would be best to understand the unit of growth as “inquiry.” In the same way that the process of rhythm is divided by beats, the process of growth is divided by inquiries. You might substitute without damage “an experience” for “inquiry” and possibly other terms as well, but, given the context of growth and education, I find the usage of “inquiry” to be most relevant. Dewey writes, “For life is no uniform uninterrupted march or flow. It is a thing of histories, each with its own plot, its own inception and movement toward its close, each having its own particular rhythmic movement; each with its own unrepeated quality pervading it throughout.”⁷ Life, and thus growth, is composed of little histories, little “plots,” each of which represents a particular inquiry. Each unit of inquiry is itself capable of being divided according to its own rhythm with an “inception and movement toward its close.” This might seem problematic for those who would wish for an absolutely indivisible “quantum” by which we could explain growth. Let me say simply that if such a thing exists, I will not attempt to articulate it here; I believe that growth can be meaningfully understood by dividing it along lines of inquiry, even if those inquiries are themselves complex, and not simple, units of determination. It might help to remember that our analysis of rhythm was not any different on this point — each “beat” is itself capable of being subdivided or analyzed into various parts. It may be that *any* determination of a process will require a complex unit, indeed, any determination whatsoever. However, I will not defend that statement here, merely assert it as possible.

So we have a process of growth that “adds to the meaning of experience, and which increases ability to direct the course of subsequent experience,”⁸ and I have put forward the postulate that we can understand this process in terms of units of “inquiry.” Just as a beat is a unit that enacts rhythm, as a nexus of beats, so too does inquiry enact growth, as a nexus of inquiries. All that we mean, then, when we say

that a subject is “growing” is that they are inquiring, or enacting, a “beat” in the rhythm of their ongoing growth. How then should we understand “inquiry”? It is important to remember that inquiry, like a beat, is not an absolute determination. Just as one person might fruitfully divide a song into different configurations of beats (counting in two, in four, and so on), so too might we divide growth into different “epochs of inquiry,” so to speak. Furthermore, as a unit of determination, inquiry, like a “beat,” is abstract, and can only be fully meaningful when used to determine an actual experience. A beat that is abstracted from the context of an actual piece of music — an embedded system of relations in process — is not worth much, just as an isolated inquiry abstracted from a life of growth — an embedded system of relations in process — is worth very little. That said, there is still something positive that can be said about inquiry as a unit of growth.

The easiest (and perhaps the only) way to divide process is by action. Thus, a rhythm is divided by the act of beating, and growth is divided by the act of inquiring. The task at hand is to determine what types of actions qualify in each case. For example, there are many types of actions that might qualify as “beating” as long as they are done within a rhythmic context: clapping, stomping, drumming, dancing, and so on. Are there equally many activities that qualify as inquiring, presuming that they are done within the context of growth? I think the answer is yes. Speaking, writing, walking, rock-climbing, playing an instrument, painting, throwing — any of these might qualify as an inquiry. This adds to the difficulty of our task, since there is no one action that is always (and only) inquiry. What we need to do is determine when an activity (writing, for example) is an inquiry and when it is not. If we could accomplish this, we would perhaps have the essence of inquiry, and thus of growth, and thus of education as well.

I can only offer a sketch of an answer here. For Dewey, a fundamental requirement of inquiry is that it seeks to overcome doubt. Successful inquiry terminates in belief, but even inquiry that is unsuccessful wrestles to overcome doubt: “Doubt is uneasy; it is tension that finds expression and outlet in the processes of inquiry. Inquiry terminates in reaching that which is settled. This settled condition is a demarcating characteristic of genuine belief. In so far, belief is an appropriate name for the end of inquiry.”⁹ The extent to which any particular action aims to settle doubt might be argued; however, we would have to say that, to whatever extent an action *does* aim to settle doubt, that action counts as inquiry. Thus, growth is ultimately a movement from doubt to belief in an ever-widening “circle” of influence: each new inquiry is brought into relation with prior inquiries (whether still ongoing or settled in belief).¹⁰ Further, each new inquiry might change the tenor of the entire nexus of relations, calling into question prior inquiries, turning already established beliefs into new doubts. This is analogous to the way in which one added beat changes the character of the rhythm. It is important that we not simply lay out inquiries on a temporal axis or number line, for to do so is to spatialize them unduly. Let us instead think of the process of growth and continued inquiry as a rhythm. Each new inquiry has its own character, its own flavor, yet each adds to the ongoing quality of the dynamic duration that seeks to settle the world around it to its own satisfaction. Education,

for it to be successful, must learn to promote not only the activity of inquiry, but also the integration of any one inquiry into the larger process of the growing agent.

EDUCATION AND MUSIC: COLTRANE

The real risk is not changing. I have to feel that I'm after something. If I make money, fine. But I'd rather be striving. It's the striving, man, it's that I want.¹¹

Hopefully, it is now clearer how rhythm and growth can be analyzed and made determinate along similar lines, given that both are essentially processes. As I showed above, considering the case of rhythm and decomposing them into units of measurement called beats might profitably help us understand what Dewey means by growth. I have at least given a sketch in this direction. But what of my earlier stated goal of bringing rhythm and growth, and thus music and education, closer together in the minds and understandings of my readers? Has this been accomplished? Perhaps not quite. I have asserted on multiple occasions that growth is the process of transforming doubt into belief, of “that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience.”¹² If we are to bring the two processes together, it seems that we might ask ourselves whether rhythm in music might also be seen as an educative or growing process. Put another way, is the act of rhythm-making also an act of inquiry? I think it may be.

If an inquiry addresses a doubt, then what doubt does the inquiry of rhythm (or music) seek to address? I do not think that there is necessarily one primary doubt or unease, but if I had to choose, I would say that rhythm and music seek to make the temporal determinate. An artist's rhythm, his groove, is an attempt to articulate the speed and pace of his own duration — to express the internality of his life in such a way that it might be brought into harmony with the durational epoch of those around him. The drive for rhythm and music is a drive to understand one's own “soul” in the broad sense of that term. If this is the case, then making music as a group is an exercise in “rubbing up” against the souls of “Others.”

John Coltrane is known for his obsessive drive for playing and practicing jazz music as well as his tendency towards incredible rhythmic exploration. He would take extended solos, working through scales and chords at incredible speeds, likened by some critics to “sheets of sound.”¹³ Coltrane spent his entire life in an ongoing inquiry into himself as a living, durational being; his career was an expression of that inquiry into himself: “To be a musician is really something. It goes very, very deep. My music is the spiritual expression of what I am — my faith, my knowledge, my being.”¹⁴ Coltrane was always hard on himself, quick to express his doubts and his frustrations with his own shortcomings, but one thing that always shone through was that he was determined to grow, to evolve, to experiment. I think he embodies a wonderful example of the intersection and overlap of education and inquiry: a man dedicated to knowing himself in the most intimate of ways and attempting to display that self to the world through his music. Education is lucky any time it manages to create (or not to destroy) a person as dedicated to growth and understanding as John Coltrane was.

CONCLUSION

On a theoretical level, both education and music each express a particular process that share a similar structure. On a more concrete level, however, it is clear that the intersection of education (as growth) and music (in its rhythmic dimension, if not more) is less distinct than we might think in today's age. If the wisdom of the muse expresses itself in the music hall or in the science laboratory, are the processes so different? Does not each seek to understand and make determinate the dynamic processes of a life in flux? Are the truths of physics more or less true (or more or less meaningful) than a tenor-sax solo by the likes of John Coltrane? Can the growth-inducing classroom model itself on a Coltrane solo? I do not believe that I have made the definitive case for a convergence of music and education here alone, but I think that the question of the value of such a convergence remains "alive" for our times in an important way.

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1. John Dewey, *Democracy and Education* (1916), in *The Middle Works of John Dewey, 1899–1924: The Electronic Edition*, vol. 9, Larry A. Hickman, ed. (Charlottesville, Virginia: IntelLex Corp., 1996), 54.
 2. Dewey, *Democracy and Education*, 55.
 3. John Dewey, *Art as Experience* (1934), in *The Late Works of John Dewey, 1925–1953: The Electronic Edition*, vol. 10, Larry A. Hickman, ed. (Charlottesville, Virginia: IntelLex Corp., 1996), 22.
 4. See, for example, the passage containing, "The increment of meaning corresponds to the increased perception of connections and continuities of the activities in which we are engaged." Dewey, *Democracy and Education*, 82–83.
 5. Dewey, *Art as Experience*, 29.
 6. Dewey, *Democracy and Education*, 82.
 7. Dewey, *Art as Experience*, 42–43.
 8. Dewey, *Democracy and Education*, 82.
 9. John Dewey, *Logic: The Theory of Inquiry* (1938), in *The Late Works of John Dewey, 1925–1953: The Electronic Edition*, vol. 10, Larry A. Hickman, ed. (Charlottesville, Virginia: IntelLex Corp., 1996), 15.
 10. Put another way, growth is quite literally the process of making the world determinate, of bringing it into relation.
 11. John Coltrane, quoted in Paul D. Zimmerman (with Ruth Ross), "Death of a Jazz Man," *Newsweek*, July 31, 1967, 78–9, quoted in in Chris DeVito, ed., *Coltrane on Coltrane: The John Coltrane Interviews* (Chicago: Chicago Review Press, 2010) 337.
 12. Dewey, *Democracy and Education*, 82.
 13. See, for example, DeVito, *Coltrane on Coltrane*, 69.
 14. John Coltrane, quoted in Paul D. Zimmerman (with Ruth Ross), "The New Jazz," *Newsweek*, December 12, 1966, 101–104, 106, and 108, quoted in DeVito, *Coltrane on Coltrane*, 337.