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# **A Transcultural Theory of Thinking for Instrumental Music Education: Philosophical Insights from Confucius and Dewey**

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## **Abstract**

In music education, thinking is often construed in terms of acquiring conceptual knowledge of musical elements. Research has found, however, that instrumental music educators have largely neglected conceptual teaching and learning. This begs the following questions: What is the nature of thinking in instrumental music education? How should conceptual knowledge be taught and thinking skills be fostered in the rehearsal hall? In this paper, I draw on the writings of Confucius and John Dewey to construct a transcultural theory of thinking for instrumental music education. As I shall show, this theory comprises three facets, namely, experience, reflection, and imagination. This study grounds thinking in instrumental music education by leaning on the philosophical insights of two major philosophers, one each from Asia and the West. It illumines the theory and practice of instrumental music education and contributes to a growing corpus of cross-cultural research in music education relevant to the present globalized world.

**Keywords:** cross-cultural, thinking, conceptual knowledge, instrumental music education, comparative philosophy, John Dewey, Confucius

In the music education literature, thinking is often construed in terms of acquiring conceptual knowledge of musical elements such as melody, harmony, rhythm, dynamics, and timbre. This elemental and conceptual approach to music education was in fashion particularly in the latter half of the twentieth-century and has roots in the theoretical writings of Jerome Bruner.<sup>1</sup> In his landmark educational theory titled *The Process of Education* that was written in the wake of Sputnik, Bruner argues that children can grasp fundamental concepts of science and the humanities intuitively even at a very young age. To achieve this, the curriculum has to be designed in a “spiral” fashion whereby foundational concepts and ideas are revisited repeatedly at increasingly higher levels of sophistication.<sup>2</sup> For Bruner, teaching and learning should emphasize subject structure rather than mastery of facts and techniques to facilitate the transfer of learning from one context to another.

Bruner’s spiral curriculum and emphasis on subject structure impacted music education, amongst others, in the Manhattanville Music Curriculum Project (MMCP) in New York and the Hawaii Music Curriculum Program in Honolulu.<sup>3</sup> Although Bruner advocates a de-emphasis on subject structures and stresses the importance of culture in later writings,<sup>4</sup> music curricula based on the National Standards and exemplified in the basal series remain, in Estelle Jorgensen’s words, “profoundly conceptual.”<sup>5</sup> In instrumental music education, a number of publications continue to take a conceptual and elemental approach to teaching. For example, in the internationally circulated *Teaching Music through Performance in Band and Orchestra* series, suggestions are offered for directors to teach the various elements of musical works such as harmony, rhythm, melody, form, and timbre.<sup>6</sup>

A conceptual approach to teaching and learning has attracted attention in empirical research.<sup>7</sup> For example, Robert Noble’s study of elementary school beginning bands found that

students who were taught conceptually showed greater musical understanding than those who were not.<sup>8</sup> Research has also found, however, that in practice, instrumental music educators have largely neglected conceptual teaching and learning. In a study involving middle and high school band directors, Larry Blocher, Richard Greenwood, and Bentley Shellahamer found that directors spent less than 3% of observed teaching time in teaching musical concepts.<sup>9</sup> In a replication of the study with middle and high school orchestral directors, Dijana Ihas found that only 5.3% of rehearsal time was spent teaching conceptually.<sup>10</sup> Robert Carpenter found that junior and senior high school band directors spent only 0.7% of total instructional time teaching cognitive knowledge, and Jennifer Whitaker found that out of eight recorded rehearsal excerpts of high school band rehearsals, only two included concept teaching.<sup>11</sup> In Asia, Tian Tee Lee found that only 30% of a sample of band students in Singapore could pass a quiz that tested their knowledge of rudimentary musical concepts.<sup>12</sup> For Thomas Trimborn, the lack of teaching for conceptual understanding is due to the fact that instrumental directors tend to emphasize the technical aspects of performance at the expense of conceptual understanding.<sup>13</sup> Such a lack of teaching for cognitive understanding is serious as it may lead to what Leonore Pogonowski laments as the phenomenon of students sitting through entire rehearsals knowing only their own parts.<sup>14</sup> Without teaching conceptually, students may not be learning enough from large instrumental ensembles.

For Jorgensen, however, efforts founded on Bruner's cyclical theory such as the MMCP have not been particularly successful.<sup>15</sup> Drawing on personal experience, she notes the difficulties she encountered while trying to apply MMCP ideas to the Milton Williams Junior High School Project in Canada. In particular, she found it challenging to synthesize the students' musical experience with the developmental concepts suggested by the MMCP, and music theory

tended to dominate the school curriculum. For Jorgensen, a spiral approach to music education with its hierarchy of ever “higher” and increasingly abstract understandings renders reason primary, favors the mind over the heart, and logical thought over intuition.<sup>16</sup> In like vein, Merryl Goldberg and Carol Scott-Kassner note that the result of an emphasis on conceptual teaching based on Bruner’s theoretical principles “was a shift more and more to treating music as an object for study and contemplation.”<sup>17</sup>

The issues noted above raise the following research questions that lie at the heart of this study: What is the nature of thinking in instrumental music education? How should conceptual knowledge be taught and thinking skills be fostered in the rehearsal hall? Given the importance of these questions, a theory of thinking specific to instrumental music education is needed to ground practice.

In this paper, I draw on the writings of Confucius<sup>18</sup> and John Dewey,<sup>19</sup> in particular, their epistemologies (that is, theories of knowledge) and theories of thinking, to construct a transcultural theory of thinking for instrumental music education. These philosophers were selected for three reasons. First, they theorized richly on the nature of thinking and what it means to acquire knowledge—issues that pertain to my research questions. Second, their ideas have shaped thinking in many parts of the world, including Asia, America, Europe, and Australia, places where educational orchestras and bands are vibrant today.<sup>20</sup> Third, although separated by cultural borders, space, and time, their ideas often resonate and mutually reinforce each other.<sup>21</sup> A synthesis of their ideas, therefore, establishes a firm theoretical underpinning on which to rest practice for bands and orchestras in Asia and the West. In the three major sections that follow, I unpack Confucius’ and Dewey’s ideas in turn, and then synthesize the major themes into a transcultural theory of thinking for instrumental music education, with illustrations of its

practical implications in the rehearsal hall. As I shall show, this theory comprises three facets: experience, reflection, and imagination.

## Confucius

A passage from the *Analects* serves as my point of departure:

子曰：「學而不思則罔，思而不學則殆。」

The Master said: Learning (*xue* 學) without due reflection (*si* 思) leads to perplexity; reflection without learning leads to perilous circumstances.<sup>22</sup>

Two characters necessitate close analysis. The first character, *xue* (學), translates as “to learn” or “to study.”<sup>23</sup> Its meaning in Classical Chinese is wide ranging: it includes learning from the experiences of others<sup>24</sup> and to become aware.<sup>25</sup> It is not studying or learning in the sense of fact accumulation but leads to practical application. The second character, *si* (思), translates as “thinking” or “reflecting.”<sup>26</sup> It is not “thinking” in the Cartesian sense<sup>27</sup> which leads to abstract theory; rather, it leads to active doing.<sup>28</sup>

*Xue* and *si* are inextricably linked. As cited above, learning (*xue*) without thoughtful reflection (*si*) leads to “perplexity”; one will be lost and gain nothing.<sup>29</sup> Conversely, reflective thinking (*si*) without learning (*xue*) leads to “perilous circumstances”; again, one will gain nothing from it.<sup>30</sup> Knowledge acquisition for Confucius, therefore, is a dynamic and holistic process of active learning and thoughtful reflection. The two constructs are interdependent and constitute a polarity whereby one is always becoming the other.<sup>31</sup> Taken together, they inform one’s actions.<sup>32</sup>

Thinking in the Chinese tradition is inextricably linked to feeling. The Chinese character *xin* (心) refers to the “heart” and the “mind”: the affective cannot be separated from the cognitive.<sup>33</sup> In the Confucian tradition, the *xin* (heart-mind) is the organ whereby thinking,

reflecting, reasoning, and feeling happen. According to the Confucian philosopher, Xunzi, thinking is the process whereby the *xin* chooses among feelings (*qing* 情), namely, liking and disliking, delight and anger, and sorrow and joy, that are in our nature. It also leads to moral actions that overcome the evil nature of humans.<sup>34</sup> Construed as such, thinking is not abstract theorizing but connected to feeling and doing.<sup>35</sup> In addition, knowledge should always be accompanied by feelings. For example, knowledge of filial duties should also be accompanied by filial feelings, and knowledge of public duties should follow hand in glove with public feelings.<sup>36</sup> In short, thinking, feeling, doing, and knowing are all linked in the Confucian tradition, a notion that Donald Munro terms “clustering.”<sup>37</sup>

In the Confucian tradition, thinking and feeling are not the only ways of knowing; one also gains knowledge through the senses. Although the Greek philosophical tradition harbors a fundamental distrust for the senses and often construes knowing in terms of reason, the Chinese tradition embraces knowing through the senses: the character 知 (*zhi*) refers to both knowing and sensory awareness.<sup>38</sup> Notwithstanding the importance of perceiving and thinking, there comes a point in which one grasps a sense of the whole. Intuition is a crucial aspect of Chinese philosophy; the Confucian enterprise stresses the cultivation of intuitive moral knowing to enable reading moral imperatives out of ever-changing situations.<sup>39</sup> Like thinking, feeling, and perceiving, intuiting leads to doing in the form of moral actions.

Thus far, I have tried to show how thinking is connected to feeling, perceiving, and intuiting, all of which leads to knowing and doing. This brings me to my final point. For Confucius, all forms of knowing ultimately lead to doing (*zhixing heyi* 知行合一). When Fan Chi asked Confucius about wisdom and knowledge (*zhi* 知), Confucius’ reply was simply to “know others” (*zhiren* 知人), so that one can “raise up the straight, apply them to the crooked, and the

crooked will be made straight,” that is, create a better society.<sup>40</sup> The Confucian emphasis on knowledge as doing should not come as a surprise; after all, Chinese philosophy began due to a need to create social order.<sup>41</sup> For Jana Rošker, knowledge for the Chinese is always linked to its application and action; there can be no theory without practice as the purpose of knowledge is ultimately to harmonize oneself with the world.<sup>42</sup> As Munro explains, to know but not to act is a sign that knowledge is superficial; true knowing always constitutes “prompting to act.”<sup>43</sup> The relationship between knowing and doing is so important for David Hall and Roger Ames that they translate *zhi* (知), commonly translated as “to know,” as “to realize” in the sense of “making real.”<sup>44</sup>

Paradoxically, the converse is also true: doing leads to knowing. According to the *Daxue* attributed to Confucius and his disciple, Zengzi, the path towards knowledge is three-fold. It begins with ethical action (*gewu* 格物), proceeds inwards to the person within, and then out again as the person performs ethical actions.<sup>45</sup> That is to say, that knowledge acquisition begins from experiential active doing. We know this, today, as “learning by doing.” Since one leads to the other, knowing and doing can be construed as a dynamic process whereby one is constantly becoming the other. In short, knowing and doing, in the Confucian tradition, are one.<sup>46</sup>

To summarize, knowledge acquisition for Confucius is a dynamic and holistic process of active learning from experience and thoughtful reflection. In the Confucian tradition, thinking is inextricably linked to feeling, perceiving, and intuiting, all of which lead to knowing and doing, which in turn are interrelated. This is an experiential, reflective, holistic, and non-Cartesian theory of thinking that does not construe dualistic separations between the mind and the body, thinking and feeling, and reason and experience.



## John Dewey

In an attempt to clarify the nature of thinking, Dewey relates the story of a man who, in desiring to be a selectman in a New England town, declared to his neighbors, “I hear you don’t believe I know enough to hold office. I wish you to understand that I am thinking about something or other most of the time.”<sup>47</sup> For Dewey, thinking as such refers to anything that comes to one’s mind. In this sense of the word, “silly folk and dullards *think*.” In another instance, a storyteller was asked if he saw a certain incident happen. His reply was, “No, I only thought of it.” This construal of thinking is not merely anything that comes to one’s mind, as in the previous instance but that which one does not directly perceive with the senses. Yet an even narrower construal of thinking is captured by the well-known phrase “Men used to think the world was flat.” Thinking is no longer understood as something rather fleeting but a belief. However, these beliefs are accepted uncritically, fall prey to prejudices, and dependent on fallible authority. For Dewey, the only type of thinking that is truly educative in value is encapsulated in the phrase “Men *thought* the world was flat until Columbus *thought* it to be round.” Unlike all of the above, Columbus’ thought was a “*reasoned* conclusion.” He did not accept traditional theory unquestioningly but doubted, inquired, scrutinized the evidence, proposed hypotheses, compared theories and facts, and produced evidence for his belief. He engaged in critical thinking or “reflective thought,” defined by Dewey as “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it.”

Several parallels can be drawn between Columbus’ thought process and thinking as advocated by Dewey for schools. Columbus did not engage in critical thinking by amassing information in the abstract but began with a real problem of having to convince the Spanish

monarch to support his voyages. In like vein, unlike what tends to happen in schools, thinking, for Dewey, should not be about the acquisition of abstract information or “miscellaneous junk” as he calls it.<sup>48</sup> Instead, thinking should pertain to problems that arise from the student’s experience.<sup>49</sup> With a problem to solve, Columbus went on to engage in systematic inquiry, which Dewey also advocates in the classroom. For Dewey, this comprises inquiry and reflection.<sup>50</sup> While the former refers to trial and error whereby learners propose numerous ideas spontaneously, reflection enables students opportunities to pause, step back, and prevents them from making ill-considered or impulsive conclusions.<sup>51</sup> Notwithstanding the conceptual difference between inquiry and reflection, the contrasts between them cannot be overdrawn as one depends on the other; the term “reflective inquiry” reflects their interconnectedness.<sup>52</sup>

For Dewey, the purpose of reflective thought is to form concepts.<sup>53</sup> The process of conceptualization involves “intension” whereby one identifies particulars and defines terms and “extension” whereby one groups particulars and classifies terms into concepts.<sup>54</sup>

Conceptualization aims at obtaining generalizable knowledge and perceiving relationships between phenomena, hence solving problems and enriching experience.<sup>55</sup> Simply put, Deweyan critical thinking begins with a problem, leads to inquiry and reflection, results in conceptual knowing, and culminates in doing directed towards solving the problem. For Dewey, “information severed from thoughtful action is dead, a mind-crushing load.”<sup>56</sup> The relationship between thinking and doing is inextricably linked to pragmatist anti-Cartesianism (that is, against the dualistic separation of the mind and the body) as encapsulated in the term “body-mind.”<sup>57</sup>

In addition to being connected to knowing and doing, thinking, for Dewey, is united with feeling. For Dewey, the notion that scientists and philosophers think while poets and painters feel is fallacious; what they engage in instead, is “emotionalized thinking.”<sup>58</sup> According to Mary

Reichling, Deweyan thought is viewed “as a unity”; there are “no categories, no cognitive and affective domains.”<sup>59</sup> She further notes that this unity of thinking and feeling is central to the experience of art as Dewey sees it and marks the distinction between an emotion and an *expression* of emotion. While an emotion like rage is “purely impulsive, just a boiling over,” an expression of rage has an intellectual aspect to it (that is, emotionalized thinking).<sup>60</sup>

Thinking is also connected to perceiving. For Dewey, since conception is universal and abstract, while perception is particular and definite, thinking begins with experience.<sup>61</sup> Although this ought to be a “silly truism,” it is often not construed as such.<sup>62</sup> Dewey explains that this is due to the Platonic dualism between experience that is thought to be restricted to the material world of senses and appetite and thinking which is theorized as belonging to a higher abstract world of reason and spirituality.<sup>63</sup> Critiquing the Kantian notion that all “pleasure” except disinterested contemplation consists entirely of personal gratification, Dewey maintains that every experience contains “an element of seeking, of pressing forward” and that contemplation that is “not an aroused and intensified form of attention to material in perception presented through the senses is an idle stare.”<sup>64</sup>

Furthermore, thinking, feeling, perceiving, knowing, and doing are all related to intuiting, defined by Dewey as the process whereby one has “the power to seize as a whole, in a single and almost instantaneous survey, a complete group of circumstances.”<sup>65</sup> As noted by Reichling, Dewey rejects the traditional notion that intuition is fundamentally opposed to reason, arguing instead that the “union of perception and reasoning involved in every act constitutes intuition.”<sup>66</sup> Intuition relates also to feeling, especially in art, where Dewey argues that “the penetrating quality that runs through all the parts of a work of art and binds them into an individualized

whole can only be emotionally intuited.”<sup>67</sup> Intuition is further linked to the knowing of “ultimate wholes” which are in turn often used as “acts of knowledge” or doing.<sup>68</sup>

One final connection needs to be made: the interdependence of knowing and doing. Dewey rejects the Platonic separation of theory and practice and what he calls the “spectator theory of knowledge” whereby the knower is a passive observer of fixed and immutable truths.<sup>69</sup> He posits an alternative cosmology wherein the world of knowledge does not exist in a separate realm from the world of action and argues that modern philosophy should “cancel the isolation of knowledge from overt action.”<sup>70</sup> As such, doing leads to knowing. This is the basis for the educational theory commonly known as “learning by doing.”<sup>71</sup>

Conversely, knowing leads to doing. All knowledge for Dewey is instrumental to the enrichment of experience.<sup>72</sup> Ruth Putnam calls this Dewey’s “instrumental theory of knowledge.”<sup>73</sup> Dewey illustrates this concept via the example of moral education, claiming that knowledge of morals should result in moral conduct.<sup>74</sup> Notwithstanding Dewey’s emphasis on doing, Putnam cautions against the common misreading of Dewey as valuing practice over theory and action over knowledge. Rather, Dewey holds them to be so interdependent that each in isolation would make no sense.<sup>75</sup>

In summary, from a Deweyan perspective, thinking is not about the acquisition of abstract information but about problems that arise from the learner’s experience. It is also connected to feeling, perceiving, and intuiting, all of which results in knowing and doing. Just as Columbus did not accept knowledge unquestioningly, learners ought to engage in critical thinking through a two-step process of inquiry and reflection. This is an experiential, reflective, holistic, and anti-Cartesian theory of thinking that seeks to remove traditional Western separation of the mind and the body, thinking and feeling, and reason and experience.

## A Transcultural Theory of Thinking

Having unpacked Confucius' and Dewey's ideas on thinking, I proceed now to meld them to forward a transcultural theory of thinking for instrumental music education and illustrate how the theoretical ideas may be realized in the rehearsal hall. This theory comprises three interrelated facets: experience, reflection, and imagination.

*Experience.* For Dewey, rather than the acquisition of abstract information, thinking and learning should pertain to problems that arise from the student's experience. This finds resonance in Confucian theory: *xue* (學) emphasizes learning from experience; knowledge acquisition begins with active doing whereby one learns from solving problems. Herein lies the problem of teaching musical concepts in the rehearsal hall. In the instrumental music education literature, there appear at least two kinds of practical resource books: those that teach directors how to solve (read: fix) problems as efficiently as possible, and those that try to present rather elaborate (read: impractical) teaching guides on how to teach musical concepts. The former treats problems almost as faults that one should eliminate as soon as possible; once something is fixed, it is time to move on to address the next problem, almost like a Ford assembly line.<sup>76</sup> The latter seems to assume utopian scenarios where students arrive in rehearsals wide-eyed and ready to absorb grand concepts of musical form and harmony devoid of the real problems that they experience, when the reality remains that in most rehearsal halls, directors and students alike are often confronted with issues of tone, intonation, ensemble, and rhythm amongst others. Consequently, there appears a tendency to separate the fixing of actual technical and musical problems that students experience and the cognitive teaching of musical concepts.

To be fair, it is not always easy to relate problems that arise in experience to the teaching of musical concepts. With looming festival and performance deadlines, it is easy to slip into the

Ford assembly line mode. Conversely, when one makes an effort to teach conceptually, it is tempting to teach musical concepts from pre-packaged resource guides: one begins with the melody, followed by the harmony, then the form, and so on, all neatly presented and systematized by the experts. Neither approach is ideal. In the former approach, students do not learn musical concepts that equip them for life; although the ensemble may sound good if the director is competent in fixing problems, the educational value of large instrumental ensembles remains in question. In the latter approach, students may feel as if they are attending academic lectures rather than rehearsals; after all, students attend rehearsals wanting to play on their instruments rather than read form diagrams. Furthermore, when musical elements are presented separately, as they often are in texts, they become decontextualized, even sterilized.

Leaning on insights by Confucius and Dewey, a third approach might be to ensure that the teaching of musical concepts in instrumental ensemble is firmly rooted in problems that arise from the students' experience. Take, for example, a high school band director by the name of Ms. Livingston. When Ms. Livingston's band sounds unbearably out of tune in a diminished seventh chord, she does not simply fish out the tuner to fix the problem. Instead, she transforms the intonation problem into a teachable moment where she could teach musical concepts. She poses the questions: "Why does this chord present intonation challenges?" "In what ways does it sound different from the major chord?" "How many of you have accidentals on your part when playing this chord?" Through problematizing knowledge, Ms. Livingston leads students into learning the concept of the diminished seventh chord: there are four pitches instead of three, and they are set in minor third relationships. To make the chord sound in tune, players must match pitch and ensure that all four pitches are of equal volume. Upon teaching the concept of the diminished seventh chord and how they ought to be tuned in an ensemble, Ms. Livingston

reinforces the concept by having the students perform them in varied repetitions, such as different inversions, arpeggios, and calls and responses. In providing opportunities for active doing, Ms. Livingston aligns her teaching philosophies with Confucius and Dewey who both emphasize the interrelatedness of thinking, knowing, and doing.

It can be seen, therefore, that Ms. Livingston situates conceptual learning in experience. Her students are able to relate conceptual knowledge of the diminished seventh chord to the practical world of music making as the need to learn the concept was created by a real-life problem and not presented in a decontextualized textbook fashion. To recapitulate Dewey, thinking begins with experience; in turn, thinking leads to further doing firmly rooted in human experience.<sup>77</sup> Ms. Livingston's intonation problem was fixed yet her students learned generalizable concepts of diminished seventh chords, balance, and intonation that they can transfer to other musical situations. In so doing, she increases the educational and musical value of instrumental music education.

*Reflection.* Both Confucius and Dewey construe thinking in terms of a dual-phase model. For Confucius, thinking involves two interdependent constructs: active learning (*xue* 學) and thoughtful reflection (*si* 思). This view resonates with Dewey's theory of thinking that comprises a similar two-part process: inquiry and reflection. In particular, reflection is emphasized by both philosophers. One learns and inquires but requires reflection for thinking and learning to happen. Without reflection, students are not given space to think and to learn.

Confucius' and Dewey's common emphasis on reflection seem at odds with the "10-second rule" whereby students play on their instruments as often as possible and directors stop for no more than ten to twenty seconds each time.<sup>78</sup> This is based on the assumption that students have short attention spans and would grow restless if given too much downtime.<sup>79</sup> However,

although there are obvious benefits for rehearsals to be relatively fast-paced with plenty of opportunities for students to play on their instruments, a strict adherence to the “10-second rule” offers no room for reflection in the rehearsal hall. The rule is further problematic in emphasizing the duration of downtime over its content. It also assumes that any time not spent on performing is teacher talk: “I quickly diagnose a problem, give instruction, and start the ensemble playing again.”<sup>80</sup> The emphasis is on the teacher and what the teacher does and says. What about moments of silence for reflection and thinking? Or space for students to ask questions? Too much emphasis has been on the quantity of non-performance downtime, too little on its quality. What one chooses to fill non-performance downtime with is more crucial than a superficial measure of its duration.

Clearly, directors must be willing to forgo the ten-second rule to make space for reflection. Within a rehearsal environment that is largely efficient with time mostly given for students to perform, time to reflect may be included artfully and judiciously to add variety to the rehearsal atmosphere and allow thinking and learning to take place. Upon teaching the diminished seventh chord, Ms. Livingston provides space for the students to reflect on what they learned. She asks: “Now that we have tuned the chord, how does it sound to you?” “Have you encountered this chord in other pieces of music?” In providing space for thoughtful reflection, Ms. Livingston allows learning to consolidate. Her students retain the concept of the diminished seventh chord and are better able to apply it in instrumental performance that, in turn, results in long-term efficiency. She does not overdo these moments but peppers them throughout the rehearsal to stimulate thinking and also provide time for embouchures and hands to rest. If she had simply tuned the chord using the “10-second rule” without digging in, teaching the concept, and making space for reflection, she would be “condemned to reteach” every time the problem



reappears.<sup>81</sup> Haste makes waste: reflection is crucial for thinking and learning in the instrumental rehearsal hall.

*Imagination.* Both Confucius and Dewey construe thinking as being inextricably linked to feeling. The distinctions between thinking and feeling lie at the heart of educational theories that separate learning into cognitive and affective domains<sup>82</sup> and betray dualistic thinking that harks back to Plato. Both Confucian and Deweyan philosophies support each other to posit an alternative theory where such dualisms do not exist practically. More recently, educational philosophers Israel Scheffler and Richard Stanley Peters characterize the interplay of thinking and feeling as “cognitive emotions” and “rational passions” respectively.<sup>83</sup> Additionally, both Dewey and Confucius see the interrelatedness of thinking, perceiving, and intuiting. Since thinking, feeling, perceiving, and intuiting are interrelated, I follow Mary Reichling to construe them as a suite of facets that comprise the human “imagination.” According to Reichling, imagination is “a power of the whole of human consciousness that employs intuition, perception, thinking, and feeling.”<sup>84</sup> This holistic construal of thinking suggests that the acquisition of conceptual knowledge should not be a strictly rational affair. Instead, teachers should appeal to feeling, perceiving, and intuiting when they teach in order to aid learning.

Applied to the rehearsal hall, instead of teaching for thinking skills *in silo*, attempts should be made to engage the imagination as a whole and relate the cognitive musical concept to feeling, sonic perception, and musical intuition. Ms. Livingston not only teaches the construction of a diminished seventh chord cognitively but also emphasizes its felt qualities: “How does it feel when the diminished 7<sup>th</sup> chord is out of tune?” “How does it feel when the same chord is in tune?” “What is the musical affect of this chord in this piece?” Ms. Livingston also makes connections between a cognitive understanding of the chord and how her students perceive it:

“What did you hear when the chord was out of tune?” “What did you hear when the chord was in tune?” Playing a series of chords on the keyboard, Ms. Livingston challenges her students to raise up their hands each time they hear a diminished seventh chord. Finally, Ms. Livingston seeks to appeal to the musical intuition of her students. Playing the last phrase of the “Happy Birthday Song” on the keyboard, she concludes the final chord in two ways: the first time using a major chord in the home key, the second time using a diminished seventh chord. She asks: “Which is the more appropriate chord to end the ‘Happy Birthday Song’?” “If you play this (diminished seventh chord) at your friend’s birthday party, what’s going to happen?” “Is this chord more like tension or release?” In taking an imaginative approach to teaching the concept of the diminished seventh chord, one that engages thinking, feeling, perception, and intuition, Ms. Livingston engages her students more efficaciously than if she were to teach only cognitively.

### **Conclusion**

In sum, according to insights from Confucius and Dewey, the teaching of conceptual knowledge in bands and orchestras should begin and end with experience, include reflection, and be done imaginatively (that is, connected to feeling, perceiving, and intuiting). As noted at the beginning of this paper, thinking in music education is influenced by Bruner’s notion of the spiral curriculum and often construed in terms of the acquisition of conceptual knowledge that facilitates transfer. At first sight, this present Confucian-Deweyan theory of thinking may appear different from the spiral curriculum as drawn by music educators with its visually attractive upward swirl towards ever-greater complexities of musical concepts.<sup>85</sup> Schematized in this manner by music educators, the spiral model appears to stress the rational aspects of concept acquisition, leaves no room for reflection, and assumes what Jorgensen calls “causal linearity and the contingency of one level on another.”<sup>86</sup> An examination of Bruner’s writings, however,

suggests that there are several resonances between Bruner's ideas and those that I am presently positing. Bruner emphasizes the importance of experience,<sup>87</sup> reflection,<sup>88</sup> and intuition<sup>89</sup> in his writings. All these aspects are excluded by this schematic representation of his ideas. Although he writes about the spiral curriculum figuratively,<sup>90</sup> music educators have reified and reduced his ideas by treating them literally and mechanistically.

To take instrumental music education forward, I suggest thinking of the spiral curriculum figuratively rather than literally, heuristically rather than mechanistically. The spiral curriculum may be used as a source of inspiration in the sense of moving from the simple to the complex and the constant revisiting of old ideas rather than as a preconceived subject structure that teachers impose on the students. Music educators may even remove the schematic representation of Bruner's spiral metaphor altogether. This approach is consistent with Bruner's own advocacy in his later writings to de-emphasize subject structures in favor of emphasizing the importance of culture.<sup>91</sup> Teachers should teach musical concepts within the overall rehearsal experience rather than abstractly, provide space for reflection, and present concepts imaginatively in ways that involve feeling, perceiving, and intuiting. With this dynamic construal of thinking, the teaching and learning of musical concepts is likely to acquire a new meaning and importance in the instrumental rehearsal hall.

Notwithstanding the insights that Confucius' and Dewey's ideas have provided, this theory is limited in drawing only on two philosophical schools. Future studies may draw on the writings of philosophers from other cultures, including Japanese, Korean, Indian, Continental, and British ones. This would not only add on the growing base of cross-cultural philosophical research in music education<sup>92</sup> but also pave the way for a truly transcultural theory of thinking for instrumental music education relevant to the present globalized world.

## Notes

This paper is drawn from Leonard Tan, "Towards a Transcultural Philosophy of Instrumental Music Education" (PhD diss., Indiana University, 2012).

<sup>1</sup> Michael Mark, *Contemporary Music Education*, 3rd ed. (New York: Schirmer, 1986), 67-70; Laurie Taetle and Robert Cutietta, "Learning Theories as Roots of Current Musical Practice and Research," in *The New Handbook of Research on Music Teaching and Learning*, eds. Richard Colwell and Carol Richardson (New York: Oxford University Press, 2002), 280.

<sup>2</sup> Jerome Bruner, *The Process of Education* (Cambridge, MA: Harvard University Press, 1960), 52-54.

<sup>3</sup> Mark, *Contemporary Music Education*, 152-167; Ronald B Thomas, *MMCP Synthesis: A Structure for Music Education* (Bardonia, N.Y.: Media Materials, 1970); Robert Walker, "Innovation in the Music Classroom II: The Manhattanville Music Curriculum Project," *Psychology of Music* 12, no. 1 (1984): 25-33.

<sup>4</sup> Jerome S. Bruner, "The Process of Education Revisited," *The Phi Delta Kappan* 53, no. 1 (1971): 18-21.

<sup>5</sup> Estelle R. Jorgensen, "Philosophical Issues in Curriculum," in *The New Handbook of Research in Music Teaching and Learning*, eds. Richard Colwell and Carol Richardson (New York: Oxford University Press, 2002), 53.

<sup>6</sup> Larry Blocher et. al, *Teaching Music Through Performance in Band*, vol. 1 (Chicago: GIA Publishers, 1996), 304-307. See also, for example, Robert J. Garofalo, *Blueprint for Band: A Guide to Teaching Comprehensive Musicianship Through School Band Performance* (Ft. Lauderdale, Fla: Meredith Music, 1983); Robert Garofalo and Garwood Whaley, "Comparison of the Unit Study and Traditional Approaches for Teaching Music Concepts and Skills through

School Band Performance,” *Journal of Research in Music Education* 27, no. 3 (1979): 137-42; Laura Sindberg, *Just Good Teaching: Comprehensive Musicianship Through Performance (CMP) in Theory and Practice* (Plymouth: Rowman and Littlefield Education, 2012).

<sup>7</sup> For a review of literature on concept teaching in instrumental music education, see Leonard Tan, “Concept Teaching in Instrumental Music Education: A Literature Review,” *Update: Applications of Research in Music Education* ahead-of-print (2015): 1-8. For practical strategies on teaching musical concepts through large ensembles, see Leonard Tan, “Conceptualizing Conceptual Teaching: Practical Strategies for Large Instrumental Ensembles,” *Music Educators Journal* 102, no. 4 (2016): 50-55.

<sup>8</sup> Robert Noble, “Effects of a Concept Teaching Curriculum on Performance Achievement in Elementary School Beginning Bands,” *Journal of Research in Music Education* 19, no. 2 (1971): 209-15.

<sup>9</sup> Larry Blocher, Richard Greenwood, and Bentley Shellahamer, “Teaching Behaviors of Middle School and High School Band Directors in the Rehearsal Setting,” *Journal of Research in Music Education* 45, no. 3 (1997): 457-469.

<sup>10</sup> Dijana Ihas, “Teaching Behaviors of Middle and High School Orchestra Directors in the Rehearsal Setting” (PhD diss., University of Oregon, 2011).

<sup>11</sup> Robert A. Carpenter, “A Descriptive Analysis of Relationships between Verbal Behaviors of Teacher-Conductors and Ratings of Selected Junior and Senior High School Rehearsals,” *Update: Applications of Research in Music Education* 7, no. 1 (1988): 38; Jennifer A. Whitaker, “Analyses of High School Band Students’ and Directors’ Perceptions of Verbal and Nonverbal Teaching Behaviors” (PhD diss., Louisiana State University and Agricultural and Mechanical College, 2008), 111. For similar findings using choral subjects, see Matthew L. Strauser, “The

Classification of Language of High School Choral Directors” (DMA diss., University of Oregon, 2008).

<sup>12</sup> Tian Tee Lee, “An Analysis of Singapore’s Wind Band Music Education System” (PhD diss., National Institute of Education-Nanyang Technological University, 2004), 40.

<sup>13</sup> Thomas Trimborn, “The Classification of Compositions for the Development of Model Instructional Units for the Purpose of Teaching the Musical Concepts of Rhythm, Melody, Harmony, or Texture to High School Band Students” (PhD diss., Northwestern University, 1984), 1.

<sup>14</sup> Leonore Pogonowski, “Metacognition, A Dimension of Musical Thinking,” in *Dimensions of Musical Thinking*, ed. Eunice Boardman (Reston, VA: Music Educators National Conference, 1989), 11.

<sup>15</sup> Jorgensen, *Pictures of Music Education* (Bloomington: Indiana University Press, 2011), 283. See also, Jorgensen, “A Case Study in Two Divergent Research Methodologies in Music Education,” *CAUSM Journal* 8, no. 1 (1979): 33-72.

<sup>16</sup> Jorgensen, “Philosophical Issues in Curriculum,” 53.

<sup>17</sup> Merryl Goldberg and Carol Scott-Kassner, “Teaching Other Subjects Through Music,” in *The New Handbook of Research on Music Teaching and Learning*, eds. Richard Colwell and Carol Richardson (New York: Oxford University Press, 2002), 1054.

<sup>18</sup> In this paper, all citations from the *Analects* are referenced according to D. C. Lau, *The Analects* (London: Penguin Books, 1979). All citations from the *Xunzi* are referenced according to D.C. Lau, Ho Che Wah, and Chen Fong Ching, *A Concordance to the Xunzi, ICS series* (Hong Kong: Commercial Press, 1996).

<sup>19</sup> In this paper, all citations of Dewey's writings are drawn from Jo Ann Boydston's critical edition. See John Dewey, *The Early Works of John Dewey, 1882–1898*, 5 vols., ed. Jo Ann Boydston (Carbondale and Edwardsville: Southern Illinois University Press, 1972); *The Middle Works of John Dewey, 1899–1924*, 15 vols., ed. Jo Ann Boydston (Carbondale and Edwardsville: Southern Illinois University Press, 1978); *The Later Works of John Dewey, 1925–1953*, 17 vols., ed. Jo Ann Boydston (Carbondale and Edwardsville: Southern Illinois University Press, 1985). The Early Works will be abbreviated as EW, the Middle Works as MW, and the Later Works as LW. Each reference will list the title of the book or article, the volume number, followed by the page number.

<sup>20</sup> Leonard Tan, "Towards a Transcultural Theory of Democracy for Instrumental Music Education," *Philosophy of Music Education Review* 22, no. 1 (2014): 61-77.

<sup>21</sup> Joseph Grange, *John Dewey, Confucius, and Global Philosophy* (New York: State University of New York Press, 2004). In constructing my theory based on the similarities of Confucius and Dewey, I am building on the work of comparative philosophers such as Grange, Roger Ames, and Sor-hoon Tan who have noted theoretical overlaps between the two. Given space constraints, I have not been able to highlight differences between Confucius and Dewey and discuss the rich new insights the differences make when reconciled, a task I will reserve for future essays.

<sup>22</sup> *Analects*: 2.15. See Roger Ames and Henry Rosemont, *The Analects of Confucius: A Philosophical Translation* (New York: Ballantine, 1998), 79. A similar theme can be seen in *Xunzi*: 1/1/12.

<sup>23</sup> Translations which gloss *xue* (學) as "to learn" include Simon Leys, *The Analects of Confucius* (New York: W.W. Norton, 1997), 8; E. Bruce Brooks and A. Taeko Brooks, *The Original Analects* (New York: Columbia University Press, 1998), 112. Those who render it in the sense of

“to study” include Lau, *The Analects*, 65; Ames and Rosement, *The Analects of Confucius*, 79; Edward Slingerland, *Confucius Analects—With Selections from Traditional Commentaries* (Indianapolis: Hackett Publishing Company, 2003), 13; Philip J. Ivanhoe and Bryan Van Norden, *Readings in Classical Chinese Philosophy*, 2nd ed. (Indianapolis: Hackett Publishing Company, 2005), 6; Arthur Waley, *The Analects of Confucius* (London: G. Allen & Unwin Ltd, 1945), 91; Sor-hoon Tan, *Confucian Democracy—A Deweyan Reconstruction* (Albany: State University of New York, 2003), 47; Chichung Huang, *The Analects of Confucius* (New York: Oxford University Press, 1997), 55.

<sup>24</sup> Tan, *Confucian Democracy*, 47. The importance of learning-studying (*xue*) in the *Analects* cannot be overstated. Confucius prided himself in *xue* (*Analects*: 5.28, 7.2, 7.3, 7.34), and his stellar disciple Yan Hui (*Analects*: 6.3, 11.7) did so despite poverty (*Analects*: 6.11). For Confucius, the desire to *xue* is the most important (*Analects*: 7.8) and effort is needed (*Analects*: 8.17). So important is *xue* that it is the first word that opens the *Analects* (see *Analects*: 1.1).

<sup>25</sup> David Hall and Roger Ames, *Thinking Through Confucius* (Albany: State University of New York Press, 1987), 44. Hall and Ames further note that *xue* (學) is an abbreviated form of *jiao* (教): “to teach” or to “become aware.”

<sup>26</sup> Translations which gloss *si* (思) as “thinking” include Lau, *The Analects*, 65; Slingerland, *Confucius Analects*, 13; Leys, *The Analects of Confucius*, 8; Waley, *The Analects of Confucius*, 91; Huang, *The Analects of Confucius*, 55; Ivanhoe and Van Norden, *Readings in Classical Chinese Philosophy*, 6. Translations that render it in the sense of “reflecting” include Ames and Rosement, *The Analects of Confucius*, 79; Brooks and Brooks, *The Original Analects*, 112; Tan, *Confucian Democracy*, 47. The term *si* itself connotes a wide range of thinking: reflective,



critical, evaluative, and even empty speculative “daydreaming.” See Tan, *Confucian Democracy*, 47, 216.

<sup>27</sup> By “Cartesianism,” I refer to “the philosophical principles embodied in the teaching of R. Descartes,” in particular, the notion of mind-body dualism. See Simon Blackburn, *The Oxford Dictionary of Philosophy* (Oxford: Oxford University Press, 2008), *Oxford Reference Online*, s.v. “Cartesianism,” <http://www.oxfordreference.com> (accessed 1 August 2015); René Descartes, *Meditations on First Philosophy/Meditationes de Prima Philosophia: A Bilingual Edition*, ed. George Heffernan (Notre Dame: University of Notre Dame Press, 1990). There is no parallel term in Chinese for “Cartesianism”; it is translated in the OCD as *dikaerzhuyi* (笛卡尔主义), literally “Descartes’ doctrine.” See Julie Kleeman and Harry Yu eds., *The Oxford Chinese Dictionary* (New York: Oxford University Press, 2010); 103.

<sup>28</sup> Hall and Ames, *Thinking Through Confucius*, 44. The progression from thinking to doing can also be seen in the Confucian text, the *Zhongyong*.

<sup>29</sup> Slingerland, *Confucius Analects*, 13.

<sup>30</sup> Ibid. This recalls *Analects*: 15.31. See Lau, *The Analects*, 136.

<sup>31</sup> Tan, *Confucian Democracy*, 48.

<sup>32</sup> Ibid., 46-47. In *Analects*: 15.16, Confucius notes that he can do nothing for people who do not constantly ask themselves “What am I to do? What am I to do?” See Lau, *The Analects*, 134. See also, Hall and Ames, *Thinking Through Confucius*, 188.

<sup>33</sup> Leonard Tan, “Reimer through Confucian lenses: Resonances with Classical Chinese Aesthetics,” *Philosophy of Music Education Review* 23, no. 2 (2015): 183-201.

<sup>34</sup> *Xunzi*, 22/107/22-22/108/1. See John Knoblock, *Xunzi – A Translation and Study of the Complete Works*, vol. 3 (California: Stanford University Press, 1988), 127-128.

<sup>35</sup> In other words, cognition is not rational but moral. See Jana S. Rošker, *Searching for the Way: Theory of Knowledge in Pre-modern and Modern China* (Hong Kong: Chinese University Press, 2008), 5.

<sup>36</sup> Donald Munro, *The Concept of Man in Contemporary China* (Ann Arbor: The University of Michigan Press, 1983), 26, 33, 35.

<sup>37</sup> *Ibid.*, 33. See also, Hall and Ames, *Thinking Through Confucius*, 68, 300.

<sup>38</sup> Knoblock, *Xunzi*, vol. 3, 123

<sup>39</sup> On the importance of intuition in early Chinese philosophy, see David Hall, *The Uncertain Phoenix* (New York: Fordham University Press, 1982), 217; Rošker, *Searching for the Way*, 6; Yanming An, “Liang Shuming and Henri Bergson on Intuition: Cultural Context and the Evolution of Terms,” *Philosophy East and West* 47, no. 3 (1997): 337-362.

<sup>40</sup> *Analects*: 12.22. See Slingerland, *Confucius Analects*, 136.

<sup>41</sup> Leonard Tan, “Confucian Creatio in situ—philosophical resource for a theory of creativity in instrumental music education,” *Music Education Research* 18, no. 1 (2016): 91-108.

<sup>42</sup> Rošker, *Searching for the Way*, 6-7.

<sup>43</sup> Munro, *The Concept of Man in Contemporary China*, 35.

<sup>44</sup> Hall and Ames, *Thinking Through Confucius*, 50-56.

<sup>45</sup> Wing-Tsit Chan, *A Source Book in Chinese Philosophy* (Princeton, New Jersey: Princeton University Press, 1963), 86-87.

<sup>46</sup> Hall and Ames, *Thinking Through Confucius*, 300.

<sup>47</sup> This paragraph is drawn from Dewey, *How We Think*, MW 6: 182-187. All italics are Dewey’s.

<sup>48</sup> Dewey, *Democracy and Education*, MW 9:163-165.

<sup>49</sup> See Dewey, "Introduction to Essays in Experimental Logic," MW 10: 331; John J. Stuhr, *Philosophy and the Reconstruction of Culture: Pragmatic Essays after Dewey* (Albany: State University of New York Press, 1993), 19; Gerald L. Gutek, "Introduction to *How We Think*," in *How We Think*, John Dewey (New York: Barnes and Nobles, 2005), xii.

<sup>50</sup> The premium that Dewey places on inquiry and reflection can be seen by the numerous times in which they appeared in his writings. See, for example, Dewey, *The Study of Ethics*, EW 4: 225; *Ethics*, MW 5:199; *How We Think*, MW 6: 296; *The Sources of a Science Education*, LW 5: 20, 28; *How We Think, rev. ed.*, LW 8: 6, 270-271; *Art as Experience*, LW 10: 310; "Aids to Study and Suggestive Question," LW 17: 185; "Obstacles to be Overcome," Supplementary Volume 1: 37.

<sup>51</sup> Dewey, *Democracy and Education*, MW 9:160-162. See also, Gutek, "Introduction to *How We Think*," xiii. On the role of reflection in an aesthetic experience, see Dewey, *Art as Experience*, LW 10: 122, 149, 188, 297. On a similar notion of reflection in Mead, see George H. Mead, *Mind, Self and Society from the Standpoint of a Social Behaviorist*, ed. Charles W. Morris (Chicago: University of Chicago Press, 1934), 90-99.

<sup>52</sup> On instances of the use of the term "reflective inquiry," see Dewey, *Experience and Nature*, LW 1: 15; *Art as Experience*, LW 10: 264. On inquiry and reflection as "study," see Dewey, *Individualism Old and New*, LW 5:108.

<sup>53</sup> On concepts, see Dewey, *How We Think*, MW 6:278-279. See also, George Herbert Mead, *The Philosophy of Education*, eds. Gert Biesta and Daniel Tröhler (Boulder: Paradigm Publishers, 2008), 126-132, 159-162; William James, *The Principles of Psychology*, vol. 1 (New York, H. Holt: 1890), ch. 12; Charles Hartshorne, *Creativity in American Philosophy* (Albany, N.Y.: State University of New York Press, 1984), 129.

<sup>54</sup> Dewey, *How We Think*, MW 6: 282.

<sup>55</sup> Ibid., 278-280, 285. See also, Dewey, *Democracy and Education*, MW 9:126, 158, 168; *Art as Experience*, LW 10: 325; Hartshorne, *Creativity in American Philosophy*, 96.

<sup>56</sup> Dewey, *Democracy and Education*, MW 9:159.

<sup>57</sup> Heidi Westerlund, "Bridging Experience, Action, and Culture in Music Education" (PhD diss., Sibelius Academy, 2002), 59-63.

<sup>58</sup> Dewey, *Art as Experience*, LW 10: 80. On emotion in *Art as Experience*, see P. G.

Whitehouse, "The Meaning of Emotion in Dewey's *Art as Experience*," *The Journal of Aesthetics and Art Criticism* 37, no. 2 (1978): 149-156.

<sup>59</sup> Mary J. Reichling, "Images of Imagination," *Journal of Research in Music Education* 38, no. 4 (1990): 284-293.

<sup>60</sup> Ibid., 13, 63-69. See also, Dewey, *Art as Experience*, LW 10: 67. As such, an "expression of rage" by students in Mark Camphouse's band work "A Movement for Rosa" is not merely "an act of discharge" like sneezing but one whereby the artist "does the deed that breeds the emotion." It carries with it an intellectual and physical component. See Dewey, *Art as Experience*, LW 10: 69, 73.

<sup>61</sup> Dewey, *Psychology*, EW 2: 204.

<sup>62</sup> Dewey, *Democracy and Education*, MW 9:160.

<sup>63</sup> Ibid.

<sup>64</sup> Dewey, *Art as Experience*, LW 10: 259.

<sup>65</sup> Dewey, *The Study of Ethics*, EW 4:308.

<sup>66</sup> Reichling, "Images of Imagination," 73; Dewey, *Psychology*, EW 2: 205.

<sup>67</sup> Dewey, *Art as Experience*, LW 10: 196, 298-299. See also, Thomas Alexander, *John Dewey's Theory of Art, Experience and Nature: The Horizons of Feeling* (Albany: State University of New York Press, 1987), 34.

<sup>68</sup> Dewey, *Psychology*, EW 2: 206.

<sup>69</sup> Ruth Anna Putnam, "Dewey's Epistemology," in *The Cambridge Companion to Dewey*, ed. Molly Cochran (New York: Cambridge University Press, 2010), 34; Hartshorne, *Creativity in American Philosophy*, 96

<sup>70</sup> Dewey, *The Quest for Certainty*, LW 4: 38-39. See also, Dewey, *Democracy and Education*, MW 9: chs. 22, 25.

<sup>71</sup> Dewey, *Democracy and education.*, 192

<sup>72</sup> Dewey, *Art as Experience*, LW 10: 294.

<sup>73</sup> Putnam, "Dewey's Epistemology," 34.

<sup>74</sup> Dewey, *Democracy and Education*, MW 9:370.

<sup>75</sup> Putnam, "Dewey's Epistemology," 36. Ralph Ross makes a similar point that Dewey has been misunderstood by those who think his famous "learning by doing" means the substitution of action for thought. See Ross, "Introduction to Essays," MW 7: iii. Another common misinterpretation of Dewey's "learning by doing" is that all doing, including mindless ones, constitutes learning. See Sidney Hook, "Introduction to Essays," MW 8: xxxiii.

<sup>76</sup> Randall Everett Allsup and Cathy Benedict, "The Problems of Band: An Inquiry into the Future of Instrumental Music Education," *Philosophy of Music Education Review* 16, no. 2 (2008): 159.

<sup>77</sup> Dewey, *Democracy and Education*, MW 9:160.

<sup>78</sup> Allsup and Benedict, "The Problems of Band," 159; Catherine S. Lenzini, "With Energy and Discipline: An Interview with Michael Stone," *The Instrumentalist* 53, no. 6 (1999): 13-14.

<sup>79</sup> Joseph Manfredo, "Effective Time Management in Ensemble Rehearsals," *Music Educators Journal* 93, no. 2 (2006): 44

<sup>80</sup> Allsup and Benedict, "The Problems of Band," 159; Lenzini, "With Energy and Discipline," 13-14.

<sup>81</sup> Harry Price and James Byo, "Rehearsing and Conducting," in *The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning*, ed. Richard Parncutt and Gary McPherson (New York, NY: Oxford University Press, 2002), 343.

<sup>82</sup> Lorin Anderson and David A. Krathwohl, *Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* (New York: Longman, 2001).

<sup>83</sup> Israel Scheffler, *In Praise of the Cognitive Emotions* (New York: Routledge, 1991), 2; Richard Stanley Peters, *Moral Development and Moral Education* (London: George Allen and Unwin, 1981), 143.

<sup>84</sup> Reichling, "Images of Imagination," 282.

<sup>85</sup> For a picture of the spiral curriculum as applied to music education, see Mark, *Contemporary Music Education*, 155.

<sup>86</sup> Jorgensen, "Philosophical Issues in Curriculum," 53. See also, Jorgensen, *The Art of Teaching Music* (Bloomington: Indiana University Press, 2008), 208; Jorgensen, "'This-with-That': A Dialectical Approach to Teaching for Musical Imagination," *Journal of Aesthetic Education* 40, no. 4 (Winter 2006): 11.

<sup>87</sup> See, for example, Jerome Bruner, *On Knowing: Essays for the Left Hand* (Cambridge, Mass: Harvard University Press, 1967).

<sup>88</sup> Jerome Bruner, *Actual Minds, Possible Worlds* (Cambridge: Harvard University Press, 1986). 127. See also, *ibid.*, 129, 131-33. On Bruner's ideas on reflection and their application to music teacher preparation, see N. Carlotta Parr, "Towards a Philosophy of Music Teacher Education: Applications of the Ideas of Jerome Bruner, Maxine Greene, and Vernon A. Howard" (DME diss., Indiana University, 1996), 67, 84, 94; Parr, "Towards a Philosophy of Music Teacher Preparation," *Philosophy of Music Education Review* 7, no. 1 (Spring, 1999): 55-64.

<sup>89</sup> Bruner, *The Process of Education*, 55-68.

<sup>90</sup> *Ibid.*, 52-54.

<sup>91</sup> Bruner, "The Process of Education Revisited," 18-21.

<sup>92</sup> See for example, Alexandra Kertz-Welzel, "Two Souls, Alas, Reside Within My Breast": Reflections on German and American Music Education Regarding the Internationalization of Music Education," *Philosophy of Music Education Review* 21, no. 1 (2013): 52-65; Leonard Tan, "Response to Alexandra Kertz-Welzel's 'Two Souls, Alas, Reside within My Breast,'" *Philosophy of Music Education Review* 23, no. 1 (2015): 113-117.