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Learning Theory in Musical Ensembles

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I am a band director who was able to experience a top-quality educator preparation program at a typical state university in Texas which prepared me for the real world of band directing. I had a practical education that addressed the ins-and-outs of the craft of being a pedagogical conductor. Yet, all discussions of *learning theory* seemed to be separated from what we actually *did* as ensemble conductors. This was evident in how we were taught. Courses in Educational Psychology and Secondary Teaching Methods didn't happen in the music building; they were taught together with other general education classes. While on the surface this seemed to have the purpose of connecting us with the wide world of educational theory and philosophy, sitting in those general education classes, I felt like the odd one out. Texas education is heavily steeped in constructivist philosophy (Oliver, 2017). At that point in time, I wasn't quite sure what it was about constructivism that didn't seem to harmonize with my subject. I agreed with the "essence of constructivism theory [that] is the idea that learners must individually discover and transform complex information if they are to make it their own" (Slavin, 2015, p. 190). However my subject, band, required that I as a teacher be highly involved in the interactions and practices taking place during that individual discovery. The fact that the teacher in band has a double role, not only that of a pedagogue, but that of a conductor, creates a disparity with the decentered role of the teacher in constructivist learning. "Constructivism's aim was to bring a content-focused pedagogy into a student-centered focus, encouraging students to become cognitively active while the teacher-role becomes less dominant" (Schmidt, 2022, p. 149, citing Renkel, 2005, p. 15). When I tried to explore this dissonance, I'd often get a dismissive wave of the hand from a general education professor: "Oh, but you musicians are different."¹

Not only was I different, I later ran into criticism in academic circles for how we, as ensemble conductors, run our classrooms. Ensemble rehearsal is usually made up of phases of music making alternating with phases dominated by verbal instruction from a central conductor (Schmidt, 2022; Rora, 2014; Herrle & Egloff, 2015; and Schönherr, 1998 show just a few examples). Both systematic philosophical explorations as well as empirical investigations raise questions about band classes centered around a figure of dictatorial power, an inspired artist, a devoted artistic master who "leads the orchestra with a masterful hand" (Adenot 2015, p. 1). I was accused of hampering the creativity we musicians so purport to cherish by employing mainly direct instruction.

Criticism of band as a classroom practice centers on its perceived lack of compatibility with constructivist classroom practice. A conductor speaks while the students are silent. They make no musical interpretations of their own but are expected to simply execute the interpretations of an authoritarian conductor (Hattinger, 2013, p. 7).² In such a setting, with its forced routines and set roles for each student, new ways of moving, creating, and sensemaking hardly seem possible (Krause-Benz 2020, p. 19). Krause-Benz' questions are posed out of systematic philosophical exploration.

¹ This answer, in hindsight, was actually a sign of respect: the professor in question was acknowledging the subject's difference and allowing it; creating space that not all constructivist philosophy MUST apply to my teaching area.

² Both Hattinger and Adenot use these statements as a starting point for arguments which explore the nature of being a conductor, statements which their arguments ultimately refute. Their end analyses present a much more realistic and complex picture of the nature of what it is a conductor actually does, reconstructing the "interactional work that has taken place between the conductor and the instrumentalists" (Adenot, 2015, p. 1).

Empirical investigation of music-making in a classroom has explored this issue as well. For example, a case study in Germany (Rora, 2014, p. 188) shows that in the teacher-led alternation between music-making and verbal instruction in school ensembles, students show minimal to no measurable active decision-making processes within classroom events.

Constructivism offers a philosophy of teaching based upon the epistemological assumption that people are not capable of knowledge of reality, rather they principally construct reality as a consequence of their own cognitive autonomy (Geuen, 2008, p. 39). Constructivist teachers aim for explanatory processes that open learning up to multiple perspectives and possible learning outcomes, rather than the reduction to a specified canon of knowledge (Geuen, 2008, p. 41). These assumptions and aims have led to classroom approaches that assume that sensemaking can only happen when the students (rather than the teacher) are involved in active decision-making within classroom events. Thus empirical results showing a lack of student decision-making activity within the classroom (such as those from Rora) appear damning when viewed through a constructive lens.

Taking the conductor out of the center of the band world is almost unthinkable. While noble in intention, Biesta criticizes a “kind of constructivist classroom in which the teacher is only present as a facilitator of learning but no longer has something to teach and is no longer allowed to teach something” (Biesta 2017, p. 72). We could do something else, sure. But then *we would be doing something else*. If we want to participate in the human *praxis* that is concert band, then a focal conductor is part of the process. Therefore, if we accept constructivist epistemology and the classroom practices that have developed out of it, band seems to be no longer a worthwhile educational activity. In fact, it seems downright harmful.

A closer look tells me that there may not be something wrong with the praxis of band in educational settings, but rather that applications of constructivist developments in learning theory simply aren't as helpful in domains that aren't dominated by verbal discourse. Such aesthetic domains cannot be served by logocentric semiotic understandings “[focused] on verbal communication and the stable structure based on the word-object (signifier-signified) correspondence. From the philosophical viewpoint, such perspective [is] entangled in the Kantian critique, according to which there is no world known or knowable beyond the phenomena constructed by our own structures of understanding” (Deely & Semetsky, 2017, p. 208).

Learning as meaning-making, especially for ensemble conductors, may be more compatible with a semiotic tradition such as that of Peirce, which sees “the development of semiotics as the science of signs” and “does not take its principal and almost exclusive inspiration from verbal language and speech” (Deely & Semetsky, 2017, p. 208). A learning theory based on such a science of signs in which nonverbal *musical* signs have a place in meaning-making gives us a much more solid foundation than verbally centered constructivism, allowing for a more involved conceptualization of teacher-direction without sacrificing the potential for learner to engage in meaning-making processes.

If students construct everything, they are at the center of events. “Because of the emphasis on students as active learners, constructivist strategies are often called *student-centered* instruction” (Slavin, 2015, p. 190). The world is suddenly limited to the student's egocentric self (see Biesta, 2017, p. 31). What tried to be an unselfish movement (STUDENT-centered) has become the epitome of selfishness (student-CENTERED). It is this aspect of constructivism that is problematic for teaching strategies in which the teacher is to play a dominant role without sacrificing relationship creation. I

would go so far as to argue that teachers often end up putting the burden of both learning *and* teaching onto the student. Rather than creating an environment in which students can be receptive to content, we have accepted the norm that things must be student-led. Instead of being able to be receptive to interaction with agentive content, students are now busy engaging in “doing student-led activities”. The teachers can then be proud that they are not dominating, not exerting too much control and power over our students. But in order to do this, we have given learners the job of being the teacher as well as being the student.

In a musical domain, the job of making classroom decisions is tied to musical coordination. Having to coordinate emerging musical relationships while at the same time discovering those musical relationships in a large complex musical ensemble could lead students to a classroom praxis that is so different from orchestral praxis that it would no longer be orchestral praxis. Such coordination needs a conductor. In the case of a classroom ensemble, it is the teacher who utilizes pedagogical coordination to “[fulfill] both her pedagogical and her musical commission when she holds-keeps-engages a coordinative flow during music-making” (Schmidt, 2022, p. 30).

Becoming a Subject in a Reality Made Up of Agentive Content

Constructivist thinking puts the student at the center of the world. If a student is constructing their knowledge, then they are the center of the universe. Being-in-the-world is only being-in-the-world-as-I-construct-it. Suddenly, rather than opening up possibilities, constructivist thought seems to hem us into a world radically oriented on the [pre-existing] interests of the students (Geuen, 2008, p. 39). What about the myriad of possibilities that students yet know nothing about? This requires the exact *opposite* of a constructivist approach: considering oneself a *subject*³-within-the-world. Biesta outlines the difference in this approach by “focus[ing] on the ways in which human beings exist, that is, in short, on *how* they are, and not on the question of *who* they are” (Biesta, 2017, p. 8). A Peircean semiotic view of epistemology offers us a way to meet Biesta’s critique here. Whereas constructivism is based on a *dualistic* division between subject and object, Peircean semiotics is *triadic*: between the subject and the object is an *included middle*⁴ in which the relationship between a subject and its *umwelt* (environment) is mediated through signs.

Constructivist thinking leads to classroom practices that are praxis-oriented, interdisciplinary and that emphasize relationships over content (Reich, 2008, pp. 82-83). Edusemiotic thinking, which shares pragmatic historical roots with constructivism, does not reject praxis-orientation, interdisciplinarity or an emphasis on relationships. In fact, these elements are vital; edusemiotics is not a return to a pre-constructivist educational paradigm. What edusemiotic thought does is recognize the agency of content and the necessity for relationships and interactions that are built with content that has its own realistic integrity. Reality is not simply a construction. It is complex and creating relationships within it takes effort (Schmidt, 2022, part 4). Grounding lesson structures in a learning theory that is based in interaction rather than in student-centered construction may pragmatically only involve tiny

³ See Biesta p. 9 et seq. for a discussion of subject-ness.

⁴ “The logic of the included middle that makes signs meaningful makes a difference. Every sign is subject to interpretation(s), and the whole triad enveloping ‘the relation-of-the-sign-to-its-object becomes the object of the new sign’ (Sheriff, 1994: 37)... This is a sign by knowing which we can know something more and something other than the sign itself. The epistemic process, for Peirce, means denial of the Cartesian notion of arriving at propositions that represent reality. The notion of a proposition, whose subject designates reality and whose predicate describes the essence of said reality, is transformed by Peirce into the interpretation of reality and living it out experientially” (Semetsky, 2015, p. 18).

changes in thinking, organizing and planning. Yet being in-and with-the-world is exactly the paradigm shift that edusemiotic writers have been calling for.

In band, this process of becoming-subject is not confined to single subject-content interaction, but occurs within a social practice. The students are not only learning *something*, but are learning to become a subject with a specific role with relationships to others who are also subjects within a specific framework (Campos, 2019, p. 227). In band or orchestra, there is a specific corporate objective: the production of a holistic aesthetic product (the piece of music being rehearsed). Everyone in the room (including the conductor-teacher) has a role to play without which a specific aesthetic product could not come into existence (take a player out and this particular product is no longer possible, it would become something different). Students interact within these roles with different agentive materials, the most obvious example being material objects that can produce certain sounds when interacted with in certain ways (instruments!). Exploration is at the heart of music-making in rehearsal as students get their ears, fingers, tongues and breath involved in the interaction with their musical roles. This intra-coordination is made possible by the pedagogical coordination facilitated by the conductor-teacher.

“Clear rules of play are necessary in order to make such active exploration possible and to minimize the possibility of failure” (Campos, 2019, p. 230). Such rules are not put into place in order to restrict freedom, but rather to *enable* it. When students play⁵ according to the rules, they move within a framework that allows them to discover something about the world, rather than having to “construct” the framework themselves, a daunting task that not only takes away valuable time that could be otherwise spent; it has a very low chance of actually being successful. Through this framework of rehearsal, a musical product begins to appear in corporate perception (*this* piece of music becomes apparent and is perceived by everyone in the room not only on an individual basis but as the product of the orchestra or band as a whole). “When we think of knowing as reception, the world does not appear as an object that is at our disposal but rather as ‘something’ that comes to us” (Biesta, 2017, p. 33). Music is not constructed individually, but is rather content that has meaning that can be explored and interacted with as reception and participation merge within coordinated activity.

[T]he world is both the natural and the social world – [it] speak[s] on its own terms, as a world that addresses me, speaks to me, interrupts me, limits me, and de-centres me, rather than that it ‘accepts’ that I am already the centre and origin of the relationship. This hints at a rather different relationship between the self and the world, where the first question for the self to ask is not “How can I understand?” but is perhaps closer to something like “What is this asking from me?” (Biesta, 2017, p. 31)

In his book, *Reassembling the Social*, Bruno Latour boldly proclaims, “Objects too have agency.” (Latour, 2005, p. 63 et. seq.). What he means by this is that “*any thing* that does modify a state of affairs by making a difference is... an actant” (Latour, 2005, p. 71). If we consider here an object as that which is objectified, that which becomes the object of our focus, that content with which we interact; then suddenly the dualistic relationship between subject and object becomes rather fuzzy. Rather than being (just a) subject that is constructing knowledge, we, as an ensemble, participate in “an interweaving of constant thematization of elements... [that] are the building blocks of an

⁵ See Schönherr p. 20 et seq. for an anthropological explanation of human *play* and how the *playing* of music can be viewed in this light.

aesthetically whole piece” (Schmidt, 2022, p. 151). We are completely immersed in the semiotic “included middle” between subject and object.

These building blocks gradually form a piece of music that is coming into being as students are playing within the set norms of the specific praxis of being-an-ensemble. As they do⁶ this, they interact with content as elements of the aesthetic product are highlighted⁷, pulled out of their musical context and interacted with (Schmidt, 2022, p. 151). They are then reintegrated into the aesthetic product, which continues to grow and develop, coming into being until it finally exists at a holistic level as all the actants: students, conductor and musical elements, meld together at a point of *phusis* in which aesthetic experience can become fully mature.

The term *phusis* is a Greek term used in Heideggerian phenomenology. Applying it to this situation, Schmidt writes:

In ‘*Zur Erörterung der Gelassenheit*,’ written in 1944/45, Heidegger suggests that Being ‘rather withdraws itself instead of offering itself to us,’ so that ‘the things that appear’ in the clearing of Being, ‘no longer have the character of objects’ (Gumbrecht, 2007, “Beyond Meaning” section, part 3, para. 6). This is exactly what happens as the students, teacher and content come ever closer to each other: the whole process seems to withdraw itself as all three elements coordinate with each other. The elements of content (finally fully revealed), the students, and the teacher all seem to disappear in a moment of aesthetic presence. There are no more elements, no more teacher, no more students. There is music. The aesthetic being of a piece of music unconceals itself at the moment when each integrated element and subject loses its identity and comes together in Gumbrecht’s discussion of Heideggerian *phusis*. (Schmidt, 2022, p. 168)

We no longer have just a melody, a rhythm, phrasing, a clarinet section, a second trumpet or a conductor. We have a piece of music, an aesthetic product, that appears in performance and takes on an identity of its own.

Edusemiotics

Edusemiotic thinking addresses the creation of meaning or sensemaking (the semiotic). Edusemiotics provides an alternative to constructivism as a foundation for educational theory by conceptualizing learning-as-semiosis (Oltenau & Campbell, 2018, p. 247). Developed out of the pragmatic thinking of C. S. Peirce, edusemiotics addresses learning through signs. “A sign is something by knowing which we know something more” (CP 8.332⁸). Signs are inherently relational, mediating between “anything entering-into-relation: subject–object; mind–body; animate life–inanimate matter; culture–nature; and most directly for our purposes, teacher–learner” (Oltenau & Campbell, 2018, p.247). Thus what was previously dualistic becomes triadic in nature. “More specifically, we can say that a Peircean (edu)semiotic doesn’t ‘locate’ learning solely within *ens rationis* (mind dependent reality), nor

⁶ “Doing” here as in the sense of executing something practically within a praxis; see discussion in Schmidt, 2022, p.67.

⁷ See Schmidt, 2022, p. 209 for a discussion of *Hervorhebungspraktik*, the “practice” of “highlighting” as a pedagogical tool.

⁸ References to collected papers of C.S. Peirce – CP followed by volume and paragraph – are in accordance with common practice.

in the ‘processing’ of an external and independent *ens reale* (mind-independent reality), but rather in the dynamic and triadic mediation of observer, the observing, and the observed” (Oltenau & Campbell, 2018, p. 249).

Peircean edusemiotics as a learning theory is compatible with the German music education scholars Wallbaum and Rolle’s research in the domain of aesthetic rationality. Aesthetic rationality is one of five rationalities (aesthetic, theoretical, ethical, instrumental, moral) which form the basis of human operational practices which Martin Seel developed as part of his critical response to the three dimensions of rationality (theoretical, moral, expressive) as proposed by Habermas (Wallbaum, 2009, pp. 205-207). In contrast to a Kantian system based on aesthetic judgment, Wallbaum and Rolle discuss modes of perception (contemplative, corresponsive, imaginative) within Seel’s aesthetic rationality:

Seel’s proposal here is that aesthetic knowledge arises from the way artworks transfigure everyday experience... [and] involves recognizing complexes of meanings, internal correspondences and metaphorical resemblances between artworks and the everyday world... exemplifying phenomena under semiotic systems that depart from stable discursive systems. Artworks thus impart experiential meanings to us that could not otherwise be conveyed through the propositional structure of theoretical discourse or through prescriptive moral-practical discourse. (Harrington, 2001, p. 11)

Judgment then becomes relational rather than logocentric and no longer relies (necessarily) on verbal discourse.

The Peircean categories of Firstness (the possible), Secondness (the actual) and Thirdness (the would be) “offer the ability to describe and understand learning and cognition beyond what is actually (that is, materially) manifest, and incorporate” (Oltenau & Campbell, 2018, p. 250). This is invaluable for educators involved with “the unidirectional temporality, the elusiveness, and the semantic indeterminacy of music” (Gebauer, 2011, p. 5).

Firstness describes essential quality or potential; Secondness addresses interaction and relationships; while Thirdness depicts mediation, laws, habits, systems of culture, etc.⁹ Quay’s coherent theory of experience addresses how these Peircean concepts, combined with Dewey’s educational emphasis on experience and Heidegger’s phenomenological concepts of how content can appear to us, give us an edusemiotic basis for a learning theory that addresses what we do in a band classroom. It allows for nonverbal a(i/e)sthetic content, whose meaning is based in an aesthetic rationality.¹⁰ Aesthetic perception is sensory perception. Aesthetic experience refers to an array of special modes of perception (contemplative, corresponsive or imaginative) in which reflection is an end unto itself and

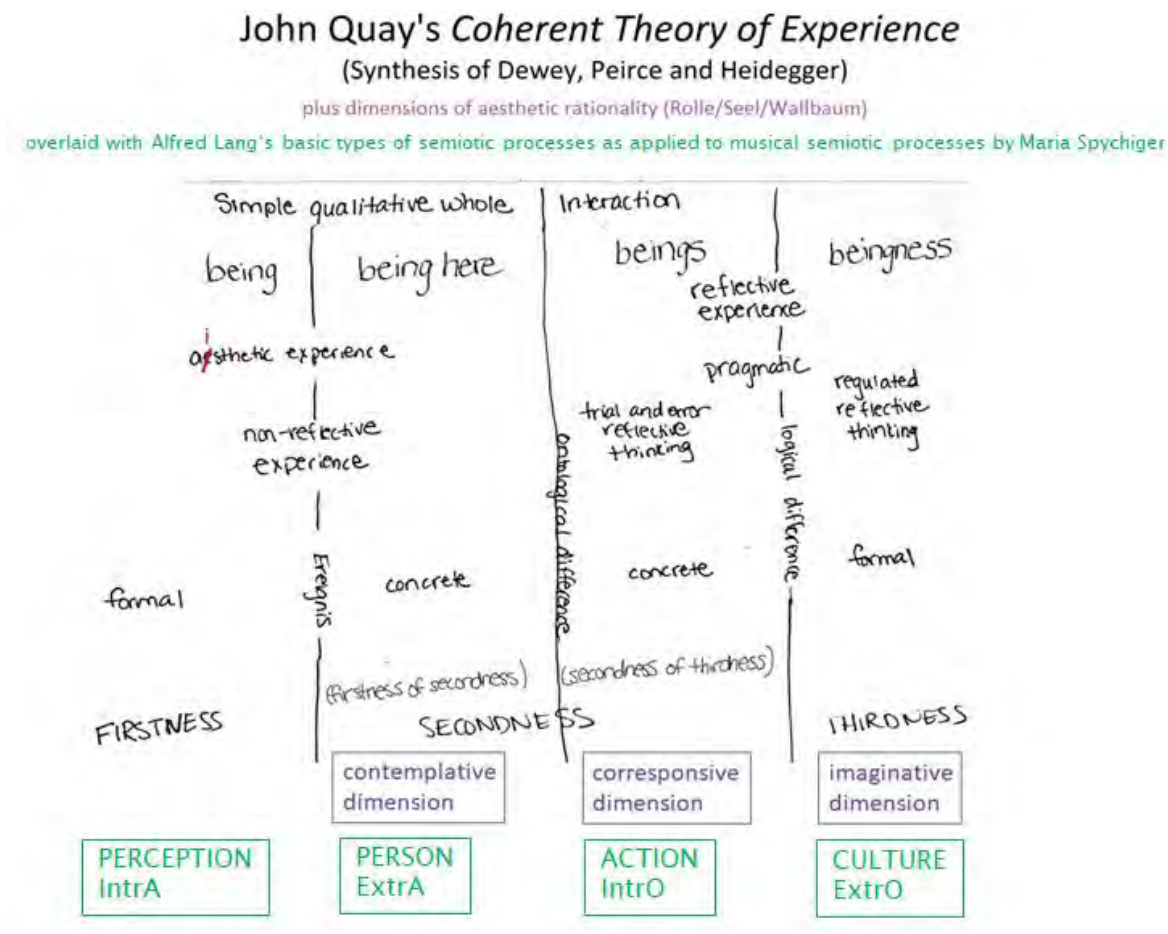
⁹ This is, out of necessity, a great oversimplification. A complete overview of Peircean pragmatism as the basis of edusemiotic thought would go beyond the scope of this paper. Recommended literature as a starting point: Plowright 2016, Deely & Semetsky 2017, Quay, 2013, Oltenau & Campbell 2018; and for its applications to band ensemble conducting, see Schmidt, 2022, part 4.

¹⁰ See Wallbaum, 2009, p. 206; Rolle, 1999, p. 120; and Schmidt’s English discussion of their aesthetic concepts in Schmidt, 2022, Part 2. The relevance of edusemiotics to a subject-domain based in a non-logocentric aesthetic rationality is here the center of focus. A natural research desideratum for the future would be the relationship between learning theories (edusemiotic, constructivist or otherwise) and rationalities which are found to be dominant in certain subjects (for example, those subjects which are more based in verbal discourse, and which have more activity within a theoretical or instrumental rationality).

involves relational judgment in which a subject is occupied in an intersubjective relationship with content (Schmidt, 2022, p. 18).

Figure 1

Quay's Coherent Theory of Experience



Note: Synthesis of Dewey, Peirce, and Heidegger plus dimensions of aesthetic rationality (Rolle, Seel, Wallbaum) with aesthetic/aesthetic differentiation overlaid with Lang's basic types of semiotic processes as applied to musical semiotic processes by Spychiger as presented in Schmidt, 2022, p. 205.

In band we begin in the aesthetic realm of Firstness and Secondness, as a musical event comes into corporate perception. In Secondness, in interaction, we coordinate with each other and with elements of the music. In Thirdness, regulated reflective thinking within an imaginative dimension of aesthetic rationality is stimulated as music elements return to the developing musical piece “through a process of reintegration back into a state of being-here where connections are again made aesthetically rather than reflectively” (Schmidt, 2022, p. 204). In other words, members of the ensemble begin in a realm of sensory musical perception. They then interact with those perceptions as they coordinate elements of the music (melody, harmony, phrasing, etc.) with one another. Habits are formed as regulated reflective thinking comes into play and a piece of music comes into existence that everyone in the ensemble perceives together (corporate perception). These perceptions land

then again in an aesthetic realm in a cycle that allows for further developmental coordination as the piece becomes more and more refined.

Pedagogical Coordination

Firstness, Secondness and Thirdness are woven into the relational mediation found within Peircean semiotics. The forming of relationships happens through coordination between learners, teachers and agentic content¹¹.

Spychiger called for coordination to be considered above (co-)construction as a learning theoretical paradigm in music education (Spychiger, 2008, p. 4) and subsequently developed the concept of coordination further by describing possible coordinative relationships¹² and applying them *as learning theory* to situations in music education. Thus, the need for a central figure around which coordination can be achieved becomes clear. The teacher-conductor is no longer to be viewed as an authoritarian dictator, but as a locus from which pedagogical coordination becomes possible.

Rather than being a master authoritarian dictator, the position of conductor is created by the need for a center around which coordination can happen (Krause & Boerner, 2006, p. 69). If sensemaking is viewed in terms of coordination between elements of content and intersubjective musical activity, then *pedagogical coordination* is that coordination at a meta-level which enables the framework for coordination at the student-level to take place. Spsychiger first developed the concept through empirical observations of pedagogically precarious moments: moments in which the teacher took some sort of action in order to keep a coordinative flow intact¹³.

From an edusemiotic perspective in which relationships have priority, the view that there is a bipolar dualism of freedom vs. force within pedagogical coordination no longer makes sense. Rather, there is a focus within an ensemble classroom on interactive relationships between agentic content, students and teachers. Relationships here refers to all relationships: both those between students and teacher and student and (musical) agentic content and teacher and content:

...edusemiotics studies virtual phenomena: immaterial 'supra-subjective' relations that although possessing subjective/material fundamentals (of the order of Secondness), transcend 'over and above' such spatial-temporal terminus, reaching both forwards and backwards in time... edusemiotics addresses not directly the material effects of learning (brain states, material learning outcomes) but rather how learning is displayed in the sign-processes that learners use, and how these sign-processes enable (or disable) the learner to continually grow and

¹¹ Coordination has been explored by Schmitt and colleagues as a social phenomenon (Schmitt, 2007). It was further explored by Spsychiger (Spychiger, 2008; 2010; 2019a; 2019b) and Hellberg (2017). Schmidt brought differing forms of coordination (interpersonal, intrapersonal, intergroup, and pedagogical coordination) found within a music classroom together from an edusemiotic relational perspective (Schmidt, 2022, Chapter 2.3).

¹² For a discussion of coordination vs. discoordination see Spsychiger 2010; further developments about intercoordination and intra-coordination can be found in Spsychiger 2019b. See Schmidt, 2022, Ch. 3.7 "Coordination as a Solution to the Inadequacy of Traditional Learning Theories" for a more complete theoretical argument.

¹³ Spsychiger calls the competencies used by a teacher when engaging in pedagogical coordination "Holding", "Keeping" and "Engaging". She developed the concept during the empirical observation of elementary school music classrooms. See Spsychiger, 2019a in the original German and Schmidt, 2022, p. 183 et. seq. for a discussion in English.

flourish within their changing relationships, environment and settings. (Campbell, 2017, p. 16)

Thus, pedagogical coordination recognizes and honors students as that which they already are as well as anticipating that which they are not yet (Campos, 2019, p. 128) as the teacher herself recognizes and weaves corporate awareness of possible relationships between differing elements within aesthetic content-coming-into-presence.

In an empirical investigation, I discovered three functions the teacher-conductor fulfills, centering around the facilitation of this coordination: that of (1) process initiation, (2) being a conduit for content and (3) error processing (Schmidt, 2022, p. 175 et. seq.). All of these roles require the development of certain competencies.

Teacher Role 1: Process Initiator

Process initiation exists at many levels. At a macro-level, the conductor must create environments which support rather than hinder possible student-content interactions by organizing spaces, picking and preparing literature, etc. At the micro-level, process initiation addresses the pragmatic necessity that “[s]omeone must initiate the tutti-play segments, or the ensemble will never be able to play together” (Schmidt, 2022, p. 175). The best example of this is the moment at which each segment of playing within a rehearsal commences. “The beat and the preparatory intake of breath establish tempo, character, style and power. The impact of that preparatory event is crucial” (Spitzer et al. 2001, p. 16).

Teacher Role 2: Conduit for Content/ *Vermittlung*

“[S]ensemaking does not come before our encounter with the other but actually only arises as a result of the encounter with the other or, to be even more precise: as a result of the ‘experience’ of being addressed by another (human) being” (Biesta 2017, p. 5). In the case of an ensemble, especially one in a pedagogical context, the students are not just learning about something. They are not just learning to do something. The learning that is taking place here is much more complex and involves the growth of “professional vision” (Goodwin, 1994). As students come together, they start to form a common vocabulary. The expert conductor imparts a way to talk about, perceive, and see (thus “vision”) the experiences happening within the “profession” of being-a-band.

In this way the conductor acts as a conduit for content.¹⁴ Schönherr discusses this role using the German word *Vermittlung*, which is a word that has connotation of “mediation”, “relaying” and “communication”. To “vermitteln” something is to pass it on, to transform something in such a way so it can be passed on through multimodal forms of communication. He argues that experience can be *vermittelt*. The chance of being a successful conduit depends on whether the conductor can establish a dialogic relationship between herself-as-subject and the work of music. Schönherr discusses music as the “symbolically *vermittelte* other”, which allows the music to be “in-the-world” and opens the possibilities for subjective connections with processes of musical experience. He claims that the educative function of music is *not* to be found in learning to become subordinate, but much more in the sure chance that musicking offers an authentic experience in which sensemaking on an aesthetic

¹⁴ See Schmidt, 2022, p. 176 et seq. for a description of how this role was observed empirically.

level can be achieved. While conducting, the conductor embodies the piece of music and becomes a conduit for musical content. This happens at the point at which a corporate experience can be found (Schönherr 1998, p. 127). Thus the conductor as a conduit for content is absolutely essential for the formation of a *community of practice* (see Lave & Wenger, 1991, esp. p. 49, for a discussion of the development of communities of practice).

Teacher Role 3: Error Processing

Verbal instruction brings musical elements into corporate intention (in the phenomenological sense). Error processing brings elements up out of their musical context; it highlights them, allowing students to get their minds, hearts, fingers, tongues and air around them. For example, tripping over a rhythm that is then addressed and isolated verbally does not just “fix a problem”, but it gives this particular rhythm time and space to be experienced. The group as a corporate whole now perceives the rhythm and its role within the piece of music. This rhythm now has an identity, an agency, a function of its own within the piece. Error processing is much more than a prognosis/diagnosis/therapy cycle: it is the foundation of *aesthetic building*. “True interaction with content involves conflict, confrontation, disorientation, and discoordination. To get to know content, you have to take it apart, play with it, stumble around in it... [this] is the way in which shared meaning and signs become present in the situation” (Schmidt, 2022, p. 182).

Summary

Coordination from an edusemiotic perspective offers us an alternative learning theory which pragmatically reflects that which band directors actually *do* in the classroom/rehearsal hall. It gives us an educational philosophical rock to stand on: when learning can be learning and teaching can be teaching and the world-with-agency has something *to be*, then we can interact with it, forming relationships with it as students and teachers as we engage in musical practice. We see through the example of educational musical ensembles that constructivist practices have difficulty making room for classroom activities that are either dominated by a high rate of teacher interaction or nonverbal (in this case musical) communication. These difficulties point to the disadvantages of constructivism’s Kantian dualism that builds a wall between subject and object. Edusemiotic thinking breaks down this dualistic wall by emphasizing relationships that are formed within the included middle.

Aimee Beaulieu Schmidt is a public educator, band director and researcher in the field of music education. She grew up in a Texas public school band program, studied music education at Stephen F. Austin State University in Nacogdoches, Texas, went on study orchestral horn playing with Bill Jones and Sybille Mahni in Mainz, Germany and then continued with doctoral studies in music education with Maria Spychiger in Frankfurt, Germany. Her research focuses on qualitative data analysis, especially in the realm of musical coordination and videographic interaction analysis. Theoretically she focuses on edusemiotic applications in aesthetic subject domains. She currently heads the music department at a German public school with an extended music performance curriculum and carries out music educational research at the University of Music and Performing Art, Frankfurt (Main) Germany.

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