

# *Creative Listening as a Driving Force in Explorations of a Subject Matter*

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*Listening is a familiar activity in education but has received less interest in the literature than speaking, matching its position in our popular culture, which focuses on freedom of speech and extrovert demeanor. Drawing on John Dewey to understand what characterizes creative listening in educational dialogue, this paper argues that creative listening initiates and prolongs explorations into a subject matter through creative tensions, here described as the interplay between originality and meaningfulness that triggers further inquiries and gives rise to ambivalent experiences within the teacher. Through these tensions, creative listening widens the subject matter and increases the opportunities for teachers and students to connect to the world of the subject matter. To achieve this form of listening, the teacher must artfully navigate the tangle of creative endeavors to facilitate enriched educational experiences for the students. By highlighting creative listening as a subtle but powerful force in educational dialogues, this paper strives to emphasize and expand the role of listening in education, promoting an understanding of the way silent communications aid complex forms of knowing.*

## **Introduction**

Although listening constitutes a substantial part of communication in education, it has generally received less interest than speaking in educational research (English, 2009; Haroutunian-Gordon & Waks, 2010). Despite the close connection between listening and speaking, the limited attention to listening in research on educational dialogues mirrors its position in our culture, where listening is overshadowed by freedom of speech and extrovert demeanor (Garrison, 2010). When highlighted in a school context, listening is, for example, viewed as a sign of obedience, signaling that students quietly take in what teachers are lecturing and memorize it for an upcoming exam (Waks, 2011). Thus, despite its constant presence in education, listening is usually portrayed as passive, functioning as a receptive skill, and a subordinate or silent partner to its more expressive counterpart, speaking (Zembylas & Michaelides, 2004). This view on listening as passive supports an approach towards education where teachers and students follow a straight line towards a predetermined learning outcome. This form of efficient and controllable listening that is focused on finding the correct answer as fast as possible before moving on to the next assignment, I argue, leaves little room for the teachers and students to connect with the world of the subject matter. In this paper, I will explore a contrasting form of listening in educational dialogue: *creative listening*. This form of listening functions as a creative force capable of prolonging and widening the explorations of a subject matter by giving rise to creative tensions that enrich and enlarge students' educational experiences in an unpredictable way.

The form of listening explored in this paper expands and builds on a growing literature on listening that draws from John Dewey to encourage a more prominent role for listening in school (English, 2009; English et al., 2023; Garrison, 1996, 2010; Haroutunian-Gordon, 2010; Haroutunian-Gordon & Waks, 2010; Waks, 2011). I will add to this literature on Deweyan listening by exploring the following question: What characterizes creative listening in educational dialogue? Interpreting the concept of creative listening through Dewey's view of inquiries as a transaction between the individual and the environment, I will argue that creative listening is central to creating complex knowledge of a subject matter via educational dialogue, even parallel to speaking. By educational dialogue, I mean an exchange between a listener and a speaker where both parties learn from each other (Skidmore, 2006). While such dialogues include exchanges between students, this paper focuses on those between teachers and students, where the teachers are the ones listening to students in the classroom. In such dialogue, the teacher has a responsibility to function as a bridge between the students and the subject matter (Gundem, 2004). I argue that creative listening could facilitate such bridge-building and help teachers guide their students to construct a complex and nuanced understanding of a subject matter in the classroom. An example of a subject matter is used throughout the paper: I will explore how creative listening is employed with students trying to understand the structure and functions of Artificial Intelligence (AI), thereby facilitating a more nuanced view of the role of AI communications today. Furthermore, the primary interest is in the way subject matter is taught in education involving youths and adults.<sup>1</sup>

In outlining creative listening as a subtle but powerful form of listening in education, I will first propose a tentative understanding of listening and creativity individually as a starting point for further exploration into the way they can work together in synchrony. I will then provide an overview of previous research in which listening is portrayed as creative. Thereafter, I will present an integrative exploration of the two concepts, seeking to characterize creative listening in educational dialogue.

### **Tentative Understandings of Listening and Creativity**

Starting with listening, I draw from Dewey (1949/1991) to understand listening as a transactional exchange, meaning that it's a relational experience where a listener attends to messages from their environment, for example, listening being done by teachers to students. Furthermore, in understanding listening as a transactional exchange, I interpret listening as an active action orientation, meaning that listening is not just about hearing sounds or receiving messages but also about being selective of what to listen to, actively interpreting that message, and finally reacting intentionally because of that listening (Adelmann, 2012; Bourdeaud'hui et al., 2018; Imhof, 2008). For example, a teacher can listen to an ambiguous answer from students, actively reflect on that answer, and finally follow up that quiet evaluation with a response in the form of a question. Accordingly, the question in the end functions as an extension of listening, bridging the divide between listening and speaking and inviting the speaker to respond to the listener.

The educational context of this paper invites a view on creativity that highlights the role of creative tensions in prolonging and widening the subject matter under exploration. Thus, creativity is here defined as a process built on tension between interplaying forces (Glăveanu, 2016). This interpretation draws from the psychological literature, which often views creativity as an interplay between originality (i.e., newness), on the one hand, and meaningfulness (i.e., adaptiveness), on the other hand (Runco & Jaeger, 2012). These two dimensions, sometimes referred to as "the paradox of creativity" (Bonetto et al., 2021; Miron-Spektor & Erez, 2017), signal the contradictory relation between breaking and upholding predetermined rules and traditions and run through much of the psychological literature on creativity. For example, the generation of meaningful and original ideas is visible in cognitive thinking (Guilford, 1967; Torrance, 1972), social interaction (Ness & Glăveanu, 2019), creative personality (Kaufmann, 1979;

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<sup>1</sup> This means that I'm giving less attention to the context of early childhood education, for example pedagogy of listening (Rinaldi, 2005).

Kirton, 2004), and motivation (Amabile, 1985; Gilson & Madjar, 2011). To pay attention to both dimensions, creative endeavors must balance thrilling escapades of going off the beaten track with demands on maintaining stability and the external demands set up by the context, thereby creating tensions. To sum up, in this paper, creativity is defined as creative tensions arising from the interplay between originality (newness) and meaningfulness (adaptiveness), serving as a precondition for the analysis of the concept of creative listening in educational dialogue.

### **Creative Listening in Previous Studies**

In the literature, there is an emphasis on listening as being both affective and non-judgmental, making the listener empathetic to what the speaker is saying by temporarily withholding preconceived ideas, as well as more cognitive and reflective listening, making the listener more focused on analyzing what the speaker is saying in light of previous knowledge (see, for example, Haroutunian-Gordon, 2010; Rud & Garrison, 2007; Waks, 2007; 2010). I draw on both of these understandings of listening when exploring different dimensions of creative listening. Furthermore, while previous research has connected creativity and listening (Garrison, 1996, 2010), there are few examples of the two concepts being explicitly mentioned together. Moreover, most of the literature touching on listening as creative has focused on one of the concepts (either creativity or listening), leaving the other concept without an explicit definition. For example, the psychological literature on creativity in education emphasizes creativity, leaving listening as a secondary concept in listening during brainstorming exercises (Al-Samarraie & Hurmuzan, 2018) or as a supporting activity in collaborative group efforts aimed at generating creative ideas (Craft, 2008). In contrast, philosophical studies of education concentrate on listening, whereas creativity is mentioned in passing in connection with the creation of something new (English, 2009; Haroutunian-Gordon, 2010; Waks, 2011).

Research on creative listening has much to gain by paying greater attention to the interplay between creativity and listening. For example, although most previous attempts to work out a Deweyan form of listening do not explicitly use the word “creativity” within their concepts of listening, the listening described is nevertheless focused on generating growth by generating new identities and relationships, thereby indirectly emphasizing a creative dimension of listening (English, 2009; Haroutunian-Gordon, 2010; Waks, 2011). In one of the few mentions of creative listening in the literature, Garrison (1996) sees democratic listening as creative in that listening to others’ points of view involves transforming and risking one’s habitual interpretation and old ways of being, thereby opening a space for new understandings to take form. In that sense, listening can be dangerous, Garrison (1996) argues; one risks one’s self-identity when listening attentively to others’ contrasting understandings. Listening as a risk is also a theme in Garrison’s (2010) interpretations of listening as compassionate. In being empathetic to others’ suffering and being “co-present” with them, one must have the courage to face disturbing realizations and, possibly, personal transformation. Thus, Garrison’s notion of listening (inspired by his readings of Dewey) emphasizes the way listening is creative by allowing one’s habitual way of knowing to be disrupted by others.

The concept of creative listening explored in this paper continues Garrison’s exploration into what creative listening might entail in educational dialogue but focuses less on teachers’ and students’ personal transformation and the building of democratic, compassionate, and empathic relationships and more on the way a subject matter can be opened and expanded, thus facilitating a multitude of entry points from which teachers and students can enter the world within a subject matter. Accordingly, this paper has a pronounced didactic angle in understanding creative listening as the prolonging and widening of explorations into a subject matter, thereby emphasizing the subject matter in the pedagogic triangle (Gundem, 2004). Considering Dewey’s (e.g., 1916/1985, p. 188; 1938/1991, p. 48) attention to subject matter, the concept of creative listening in this paper is primarily addressed with regard to its role in stretching the limits of understanding and finding different entry points into the world within a subject matter.

In emphasizing the two core dimensions of creativity established within the psychological literature on creativity (i.e., originality and meaningfulness), this paper connects creative listening to Dewey's psychological roots (Brinkmann, 2011; Glassman, 2004). Once the president of both the American Psychological Association and the American Philosophical Association (Martin, 2003), Dewey had an interest in combining both psychological and philosophical understanding of education, highlighting the way inner processes and environmental forces were interdependent in a transactional manner, each reliant on the other to exist. Such a transactional view is visible within a growing field in psychology that draws inspiration from Dewey, pragmatism, and a sociocultural perspective on knowledge to emphasize the way the human mind is distributed, embodied, and situated (Glăveanu et al., 2020). This cross-disciplinary approach is also applied in this paper to interpret creative listening as a transaction between the individual and the environment, highlighting the way inner psychological processes are inseparable from the surrounding environment.

### **Creative Listening in Educational Dialogues**

Having laid out the understandings of listening and creativity and having thereafter explored the way listening has been interpreted as creative in previous studies, my aim is now to put the two concepts of creativity and listening in dialogue with one another, exploring different approaches to creative listening and building a conceptual ground from which to understand listening as creative in an educational context. Hence, creative listening will be explored as a driving force in (1) initiating and steering inquiries into the subject matter through (2) listening for originality and meaningfulness, which (3) gives rise to creative tensions (interlocking inquiries and experiences of ambivalence) that prolong the exploration of a subject matter.

#### ***Initiating and Steering Inquiries***

To interpret creative listening as a driving force in educational dialogue, I turn to Dewey's theory of inquiry. Dewey (1910/1985) describes the building of knowledge as starting when the individual interacts with an environment and recognizes a perplexity to which there are no predetermined explanations, which initiates an exploration of what this perplexity entails, how to solve it, and how well the solution works (p. 237). Thus, in a sense, the world comes alive when we interact with it. However, the acquired knowledge is temporal and only works in the present as a "warranted assertion," as Dewey calls it (Dewey, 1941/1988). That is, the interaction between individuals and their environment creates an intersubjective knowing of what the world entails right now, leaving knowledge of the future to be determined by continued inquiries. Thus, educational contexts need a process of joint inquiry characterized by a transaction between the teachers and their students to reevaluate every new situation that comes along, gathering experiences that may guide teachers and students onward (Dewey, 1938/1991, pp. 25-26).

In Dewey's model of inquiry, inquiries begin when the individual notices resistance when interacting with the world. For example, the teacher interacting with students trying to learn about a subject matter may notice that the students do not properly understand the subject matter (Dewey, 1910/1985, p. 237). The teacher's attention to this uncertainty initiates a quest to explore ways in which the discovered problem of understanding is solved. Dewey (1916/1985, pp. 157-158) argues that noticing perplexity—where prior experiences and habitual ways of interacting with the world have been disturbed and no longer function—is characterized by an embodied sense of disturbance that ignites an inquiry into the source and nature of the perplexity or disturbance. This initial pre-cognitive and intuitive phase of listening emerges before the individual consciously identifies or articulates the problem. In an example of students who put forward an understanding of AI by drawing similarities to a fungus, this metaphor could have originated from the following inquiry process: The teacher listened to the students' perplexity when trying to understand how AI works; the students' old ways of understanding an AI system have

failed, initiating an exploration by the teacher of new ways to facilitate their understanding of the subject matter, perhaps by comparing an AI system to a system the students already know much about from their personal interest in fungi. Thus, the teacher's initial noticing of unsettlement in the students' understanding of the subject matter and the investigation into what that problem entails and how it can be resolved represent an example of how creative listening drives educational dialogue since this meaning-making must begin in listening before the speaking mode can proclaim meaning to the world.<sup>2</sup> Accordingly, listening precedes speaking, making it an important component in initiating creative explorations into a subject matter.

Vital to the inquisitive exploration of a subject matter are questions, namely questions about what the pre-reflective sense of perplexity entails and how to deal with it. Questions are usually included in the definition of listening, making them a bridge between a listening and a speaking position (Adelmann, 2012). Thus, the initial listening to a problem and the following suggestions for solutions to that problem are not contained inside the individual mind but are carried over to the conversation partner through questions, emphasizing that an inquiry should be made in cooperation with others. In conclusion, the initial step of Dewey's approach to inquiry—that is, noticing resistance—is dominated by listening since listening is seen as taking responsibility for noticing a problem and launching the solution to tackle it. Thus, creative listening is a prerequisite for new understandings of a subject matter, initiating joint inquiries that resolve initial perplexities.

Creative listening is also pertinent to the next step of Dewey's theory of inquiry, where the suggested solution for the initial perplexity is tested and evaluated (Dewey, 1910/1985, pp. 240-241). Specifically, creative listening involves letting the teacher and students jointly influence the direction of the educational dialogue and whether the exploration is prolonged. As Dewey (1925/1988) argues:

[A]ll reflection sets out from the problematic and confused. Its aim is to clarify and ascertain. When thinking is successful, its career closes in transforming the disordered into the orderly, the mixed-up into the distinguished or placed, the unclear and ambiguous into the defined and unequivocal, the disconnected into the systematized. (p. 60)

Dewey (1929/2008, pp. 98-99; 1934/1989, p. 45) argues that the resolution of perplexity at the end of an inquiry also has a pre-reflective and intuitive dimension, where teachers develop an embodied sense of whether the solution feels right, or whether the problem has been resolved and order has been restored. As such, the problem is resolved when the sense of discomfort or uncertainty evaporates. For example, if the teachers' suggested solution of comparing AI to something the students already know (fungi) resolves the initial problem of understanding an AI system, the exploration comes to a halt. This signals a satisfying fulfillment of the requirements of the context; that is, the teacher and the students have not only understood the subject matter but also expanded their action repertoires and meaning horizons in interaction with the environment, thereby facilitating a richer and more flexible response to future interactions (Dewey, 1916/1985, p. 108). However, if the tested hypothesis does not solve the problem that initiated the joint exploration, the inquiry must continue with yet another circle of exploration, generating a new hypothesis, testing it, and repeating until a satisfying solution is found.

In carrying out inquiries in educational dialogues, listening is transactional: something that belongs to both the listener and the speaker since the listener's actions depend on the environment to move the dialogue forward (Dewey and Bentley, 1949/1991). The co-dependency between the listener and the speaker is a sign of maturity in English and Doddington's (2019) reading of Dewey. Dewey (1916/1985, pp. 55-56) argues that growing up is not just about learning independence and leaving the nest but about learning the importance of dependency and caring for each other's development. In line with Dewey,

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<sup>2</sup> While this paper predominantly focuses on verbal interactions concerning discussions of subject matter in dialogues, the understanding of listening argued for here is also relevant to a broader conception of inquiry where listening is involved in more practical and hands-on forms of exploration.

Waks (2011) makes a connection between listening and forming friendships, as the former promotes an empathetic understanding. Waks maintains that cooperative friendship, resulting from mutual listening in conversation, generates both an experience of democracy in the present moment and the skills necessary to inform future endeavors toward a democratic society. Thus, the listener and the speaker share responsibility for the inquiry and are dependent on each other to drive the inquiry forward. Such collaborative listening is visible in the given example of creative listening. Here, the teacher and the students who are having a conversation about the similarities and differences between an AI system and a fungal network could agree on a satisfying conclusion to the comparison, thereby putting a halt to the conversation; however, they could also choose to continue the inquiry, digging deeper into the subject matter, by listening to other similarities or differences between an AI system and a fungal network or by finding other examples of networks and self-organized systems (e.g., the human brain or ant colonies) to compare with AI systems. In this kind of pedagogical relationship focused on joint inquiry, the teacher must take the lead and use creative listening to engage the students in explorations into a subject matter.

Once again, questions offer a way to bridge the gap between the listener (the teacher) and the speaker (the students), inviting the speaker to respond by asking for clarifying examples, alternative answers, or an elaboration of reasoning. Questions have a central place in Dewey's theories about knowledge-building, being a natural consequence of curiosity (1910/1985, p. 206) and an integral part of inquiry (Dewey, 1910/1985, p. 237). For example, questions are asked about an initial perplexity, about what such a problem entails, about the possible solutions to such a problem, and finally, about the consequences of tested solutions. Questions thus serve as a glue that connects listening and speaking into a transactional whole, enabling the dialogue to move forward.

I argue that the approach towards inquiry described above situates listening as a creative driving force in educational dialogue. An approach that presents a view of listening that is radically different from the often-held notion of listening as primarily passive, receptive, and subordinated (Bourdeaud'hui et al., 2018), where the listener waits for the speaker to dictate the content of the conversation and steer it forward. Instead, listening here plays a dominant role in driving an inquiry forward in educational dialogue since it initiates explorations into the subject matter and influences whether those explorations should continue and, if so, in what directions. Although creative listening is not as expressive and tangible as speaking in educational dialogues, it has a prominent role in the interaction, quietly shaping the way an inquiry into a subject matter is initiated and guided.

### ***Listening for Originality and Meaningfulness***

While the above analysis emphasizes the dominant role of teachers' listening in educational dialogue, showing how it actively initiates and steers inquiry into a subject matter together with the students, there are still questions concerning what focus this kind of listening should have for it to be characterized as creative. That is, what does the teacher listen for when listening creatively? I argue that creative listening involves repeated listening for both originality (newness) and meaningfulness (adaptiveness), the two dimensions in the standard definition of creativity described earlier (Runco & Jaeger, 2012).

Based on the definition of creativity in psychological literature, originality must be adapted to the situation at hand, as not every original idea is suitable to the context. Ideas that have no connection to the studied subject matter or that are plain wrong can be original but cannot be considered creative since they are not meaningful in the context where they are presented. Hence, creativity is as much about understanding a subject matter in an original way as it is about meaningfully connecting this original understanding to the requirements of the assignment at hand, making creative listening a dynamic movement away from and back to the expected outcome of an assignment. For example, in the hypothetical teacher-student interaction presented in this paper, comparing an AI system to the mycelium

network of fungi is indeed original since it is unexpected;<sup>3</sup> however, this originality is not enough unless it brings an additional understanding to the subject matter at hand. That is, it must also be meaningful in the context where it is presented: the mycelium network metaphor must abide by the rules and expectations of the classroom where it is being discussed, for example, by being presented in a clear manner, comprising only known facts, and being portrayed in a nuanced manner to illustrate both the similarities and the differences between the AI system and the mycelium network. Thus, listening for only one of the dimensions, either originality or meaningfulness, only takes the teacher and the students halfway through creatively exploring a subject matter.

This notion of creative listening, being mindful of making original ideas meaningful in the context in which they are presented, is consistent with Dewey's work (1916/1985, pp. 157-158). Dewey's understanding of the incremental change of continuity involves the inclusion of both originality (newness) and meaningfulness (adaptiveness) in the standard psychological definition of creativity. Dewey points to the balance between the two in his concept of *functional coordination* (Dewey & Bentley, 1949/1991; Östman & Öhman, 2023), in which generating new knowledge cannot just be about imposing new meanings on others but should also be about considering demands from the environment, such as the teacher's instructions or the requirements of the assignment. Otherwise, the creative push for originality gets stuck in its tracks, unable to function within the parameters of the given context. Furthermore, in stressing the need for meaningfulness in creative listening, Dewey's (1938/1991, pp. 25-26) principle of continuity also emphasizes the need to connect new understandings to the old habitual ways of viewing. Dewey (1916/1985) makes this point in his definition of education, saying that education "is that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience" (p. 82). Hence, Dewey emphasizes maintaining a sense of coherence and starting with established habits of knowledge before launching into inquiries to reshape that which is already known. Interpreted from this viewpoint, creative listening must, therefore, offer a way to build on already established knowledge and to modify it gradually, potentially leading to greater changes over time. From this perspective, most creative ideas are variations of what has existed before, incrementally building on already tested and established forms of knowing.

### ***Prolonging the Exploration of a Subject Matter through Creative Tensions***

Building on notions of Deweyan listening, I have shown that creative listening involves initiating and steering inquiries where teachers listen for both originality (i.e., newness) and meaningfulness (i.e., adaptiveness) in students' answers. Importantly, the interplay between originality and meaningfulness gives rise to creative tensions, which are explored here from a temporal viewpoint as well as a substantive one. Specifically, I argue that creative listening gives rise to creative tensions that prolong and widen the exploration of a subject matter by generating a multitude of entry points from which teachers and students can connect to the subject matter. Two forms of such creative tensions occur in educational dialogue: interlocking inquiries and experiences of ambivalence.

#### **Interlocking Inquiries**

When teachers orient their creative listening toward searching for both originality and meaningfulness in students' answers, the interplay between originality and meaningfulness triggers interlocking inquiries that extend the explorations of a subject matter. Dewey (1938/1991) describes such an interplaying process in *Education as Experience*:

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<sup>3</sup> The students might connect AI systems' way of communicating in electronic networks with the mycelium network of fungi that enables the cooperation of thousands of seemingly isolated fungi beneath the ground. Each system represents complex self-organizing systems capable of growing and adapting to changing circumstances.

Once more, it is part of the educator's responsibility to see equally to two things: First, that the problem grows out of the conditions of the experience being had in the present and that it is within the range of the capacity of students; and, secondly, that it is such that it arouses in the learner an active quest for information and production of new ideas. The new facts and new ideas thus obtained become the ground for further experiences in which new problems may be presented. The process is a continuous spiral. (p. 53)

Here, Dewey suggests the image of a "spiral" that feeds itself, where new ideas are born as a reaction to old ones. Such back-and-forth movement between predetermined and new understandings of a subject matter is visible in Dewey's writings on continuity and change, where the resolution of one inquiry creates a new inquiry, thereby connecting different inquiries to each other. Dewey (1938/1991) focuses on this kind of temporality when expressing that education should "select the kind of present experiences that live fruitfully and creatively in subsequent experiences" (p. 13). He underlines the importance of inquiries being connected to each other, spiraling towards more enriched and expanded forms of understanding. I argue that creative listening is characterized by such creative tension, where the resolution to one inquiry (e.g., finding an original understanding of a subject matter) triggers an inquiry in the opposite direction (e.g., finding a way to integrate the original answer into predetermined and expected understandings of this subject matter), thereby prolonging explorations into the subject matter. In doing so, a teacher's creative listening involves a delicate balance between intentionally guiding the conversation toward intended directions and listening openly to the students, following their exploratory path. This flexible form of listening invites surprising turns, causing the teacher to experience pre-cognitive perplexities before reflecting on the meaning of those disturbances and finding out whether the student's response is too original or conservative. This reflection then prompts the teacher to guide the ongoing inquiry, asking probing questions to explore alternative routes for the conversation.

This is exemplified by the teacher and students using fungi as a metaphor to understand the subject matter of AI. When the teacher first listens openly to the students' idea of similarities between the AI system and the mycelium network of fungi, the teacher experiences a sense of discomfort that makes the teacher reflect on the idea, finding it to be promising but too far out, not sufficiently attending to the requirements of the assignment (i.e., not presenting a clear and concrete understanding of an AI system). Therefore, while continuing the dialogue with the students, the teacher, with the help of creative listening, encourages the students to keep elaborating on the fungus metaphor to clarify the similarities between fungal networks and AI systems in a more concrete manner. However, the teacher is not content with listening to the ways in which the students confine the fungus metaphor to a predetermined understanding; instead, the teacher continues to listen to ways in which the students push an original understanding as well. Thus, with the help of creative listening, the teacher keeps pushing the students to look for more original ways of understanding AI systems.<sup>4</sup> Consequently, the teacher listens for ways to make their own and the students' understanding more complex by encouraging the students to keep paying attention to both originality and meaningfulness in the iterative exploration of the AI subject matter during the length of the dialogue.

Furthermore, listening for originality triggers listening for meaningfulness and vice versa. For example, when the teacher is listening for originality in students' answers but the originality is pushed too far (e.g., the students make comparisons between AI systems and mycelium networks that make no sense or are too vague), it triggers a listening for meaningfulness because the teacher has to help the students to adapt the original answer to the requirements of the assignment. In the same line of reasoning, if the teacher is listening for meaningfulness in the students' answers but the meaningfulness is pushed too far (e.g., the students make no attempt to give new perspectives on a subject matter, focusing only on

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<sup>4</sup> For example, the teacher's creative listening might encourage students to highlight other similarities between AI systems and fungi, like the similarity between the electronic pulses of the AI network and the electric impulses in the mycelium network or the way only surface-level elements are visible to the spectator of the networks, i.e., the mushrooms sticking up from the ground or the AI-generated texts on the computer screen.

fulfilling the assignment requirements), the teacher is triggered to listen for originality since too much attention is given to a predetermined understanding of the subject matter. Thus, when either dimension is pushed too far, listening for one dimension will trigger the corresponding act of listening to the other, thereby prolonging the exploration of a subject matter via interlocking acts of listening.

The temporal view of creative listening, that is, viewing listening as giving rise to a creative tension that prolongs explorations into the subject matter, corresponds to the literature on creativity that emphasizes its iterative and repetitious nature, highlighting the way creative ideas are generated by elaborating on ideas over time (Sawyer, 1999). In line with such a dynamic view of creativity, Dewey looks at opposites holistically; namely, he argues against dualism, instead preferring to explore the way opposite forces integrate and work together in nature (Dewey, 1938/1991, p. 5; Garrison, 1985). Underlining the importance of integrating opposites, he says that “it is the intricate mixture of the stable and the precarious, the fixed and the unpredictably novel, the assured and the uncertain, in existence which sets mankind upon that love of wisdom which forms philosophy” (Dewey, 1925/1988, p. 55). Dewey (1910/1985, p. 189) also refers to an interplaying dynamic by discussing the rhythm of nature, where altering forces take turns (e.g., the ebb and flow of the tide), expressing a creative tension between possible yet incompatible suggestions. As previously mentioned, such creative tension is visible in teachers listening for both originality and meaningfulness. Here, the teacher must simultaneously listen to student answers that move away from expected and predetermined understandings, possibly making the answers original, and listen to their reasoning about how these original answers fulfill the predetermined requirement of the assignment, making them meaningful in the educational context. Like the ebb and flow of the tide, both acts of listening take turns during the exploration of the subject matter; they are interlocked in an iterative process that consequently prolongs the exploration.

Such a view of knowledge creation as being made up of dynamic movements corresponds to Dewey’s interpretation of knowledge as a verb, knowing, constantly created by new transactions between the individual and the environment (Dewey & Bentley, 1949/1991). Dewey’s emphasis on staying flexible in exploring subjects is also relevant here. In his own words, “Holding the mind to a subject is like holding a ship to its course; it implies a constant change of place combined with unity of direction” (Dewey, 1910/1985, p. 212). Thus, in creative listening, the teacher and the students are always in motion, involved in a dynamic interaction where interlocked acts of listening trigger each other, thereby moving the explorations forward in a spiral toward an enriched understanding of a subject matter.

### Experiences of Ambivalence

Continuing the discussion on the creative tensions that prolong the exploration of a subject matter, I will now turn to the importance of experience in creative listening. The concept of experience has a central role in Dewey’s view on education—both the experience of the individual while occupied with an inquiry brought about when interacting with the environment and the meaning-making that the individual generates at the end of the inquiry. Thus, experience stretches from the beginning to the end of the inquiry (Rodgers, 2002). However, as Dewey (1938/1991, p. 11) points out, not every experience is an educational experience. Educational experiences must add new meaning and reorganize old habits, giving rise to more complex knowledge of a subject matter, and thereby improving the readiness to engage in future interactions. Such experiences resonate with what Dewey (1938/1991) labels “collateral learning” (p. 29), referring to the learning that goes beyond the intended (prescribed) understanding students achieve when exploring an assigned subject matter.

I would argue that the experience of creative listening is an aspect of such collateral learning, yielding knowledge about the way creativity is sensed in the present moment. Creative listening is not just about creating more complex knowledge of a subject matter but also about having a string of experiences in how listening affects one’s agency, creating a sense of control over the generation of creativity. In contrast to such an experience of certainty, I argue that perhaps the most striking aspect of creative listening as an educational experience is the sense of ambivalence brought about by the interlocking

inquiries described earlier. Listening for originality and listening for meaningfulness are considered opposites; that is, one form of listening focuses on the way students' answers depart from the expected answers, whereas the other form focuses on the way students' answers adhere to expectations. Consequently, a teacher who is repeatedly and simultaneously listening to both originality and meaningfulness in students' answers will sooner or later experience ambivalence. For example, the teacher listening to students comparing an AI system to a mycelium network will both experience a sense of curiosity about where this metaphor will take the students' understanding and simultaneously experience a sense of frustration and uncertainty about the meaningfulness of such a comparison. Dewey (1922/2008, pp. 31-32) suggests that an individual's intention to interact with the environment (which in this paper refers to teachers listening to originality and meaningfulness in students' answers) is not always a deliberate choice but is shaped by habits formed through prior experiences. Even though it may seem that the teacher is not listening to anything in particular, making the listening open and undirected, previously formed habits can intuitively guide the teacher's way of being in the dialogue, making discomfort emerge when these underlying expectations of originality or meaningfulness are challenged. Such disturbance makes underlying habits come to the fore, prompting a revision of the teacher's engagement with the students' responses. Thus, parallel and contrasting ways of listening—one focused on responses veering off the standard way of interpreting a subject matter (i.e., originality), and the other focused on original responses returning to the predetermined expectations of the subject matter (i.e., meaningfulness)—create ambivalent experiences for the teacher.

As I conceptualize it, ambivalence incorporates uncertainty, confusion, and indecision but cannot be reduced to these terms. While uncertainty and confusion capture the unclarity and disorientation of navigating conflicting paths, ambivalence adds the captivating struggle of exploring contradictory forces, engaging the teacher in perplexity that keeps returning, thus prolonging the exploration of a subject matter through the teacher's efforts to balance irreconcilable directions that trigger each other. Similarly, indecision reflects the momentary hesitation of conflicting desires. Yet, drawing on Dewey's (1910/1985, pp. 237-238; 1934/1989, pp. 159-160) emphasis on affective dimensions of inquiry, ambivalence goes further as a deeply embodied and emotional experience of being continuously drawn in opposing directions, representing a multifaceted engagement marked by dynamic tension and emotional resonance. I argue that this kind of ambivalence experienced as jumping back and forth between the interlocking forms of listening keeps the creative exploration going forward since the ambivalence experienced by the teacher creates an immediate tension that the teacher must deal with. Such tension is generated by the teacher's more or less conscious urge to drive the exploration in the direction of originality and meaningfulness while simultaneously balancing these opposing forces. Consequently, the ambivalence experienced by the teacher hinders premature closure, or suspended conclusion, thereby facilitating further exploration into a subject matter (Dewey, 1910/1985, p. 191). Such ambivalent experiences are comprised of events that are "problematic, undecided, still going on and as yet unfinished, and indeterminate in nature" (Dewey, 1925/1988, p. 262) and are different from what Dewey (1934/1989, p. 44) describes as a consummatory "aesthetic experience." In such an aesthetic experience, the exploration of a subject matter is experienced as temporally coming to an end, characterized by a sense of completeness, harmony, and equilibrium. However, as an indispensable addition to such a consummatory and fulfilled experience, Dewey (1934/1989, pp. 47-48) discusses the hardship of continuously having to reinvent a subject matter, arguing for the necessity of struggle and pain for reconstructing one's understanding of things. Thus, from a temporal view of listening in educational dialogue, the continuous need to reinvent the subject matter due to ambivalence extends the exploration of a subject matter: one inquiry becomes a means to reach the next inquiry and so on, turning each inquiry into both a means to reach further explorations and an end in itself.

### **Concluding Thoughts: Creative Listening as an Artform**

The version of creative listening that has been suggested in this paper is one of many possible interpretations of the concept, inspired by Dewey's ideas about inquiries, experiences, and transactions, as well as being tied to the specific context of exploring a subject matter in educational dialogue. I have argued that creative listening initiates and steers the explorations of a subject matter and gives rise to creative tensions that prolong these explorations, thereby creating opportunities for teachers and students to connect with the world of the subject matter. In this concluding discussion, I argue that creative listening is an art form carried out by the teacher, and in doing so, I will connect the different threads of creative listening presented in this paper.

Dewey interprets communication as art, meaning that communication has an opportunity to expand and enrich the experiences of its participants (Stroud, 2007). In line with this interpretation, I argue that creative listening is an art form since the teachers performing this kind of listening must navigate a tangle of creative endeavors to facilitate enlarged, deepened, and widened educational experiences (Dewey, 1938/1991, p. 61). Seeing that listening for originality and meaningfulness creates a tangle of contrasting directions (Tanggaard & Krabbe-Juelsbo, 2023), teachers must find a way to make meaning of these different directions, be attentive in the present moment, and listen for clues on where to go next. When teachers allow and encourage students to engage in inquiries characterized by an interplay between originality and meaningfulness, loosening the prearranged structure of a subject matter, some confusion is to be expected. As such, we are not spectators of a finished universe but participants in an unfinished universe marked by uncertainty and unrest (Garrison, 1994; Wong, 2007). As different threads from different interlocking inquiries come together over time, the teacher must artfully sew them together to create a balance between mess and order, making it an art form in the classroom. Dewey (1910/1985) argues that thinking "involves a jump, a leap, a going beyond what is surely known to something else accepted on its warrant" (p. 201). Since the exploration of new understandings is necessarily harder than relying on old and tested meanings, most creative endeavors result in incomplete understandings. Therefore, the adventurous directions facilitated by the teacher's creative listening need to be attended to. Here, teachers have the responsibility to create an open and tolerant atmosphere in the classroom, thereby creating opportunities for creative explorations to flourish.

In the example of the teacher who is listening to the students compare an AI system and a fungal network, the teacher's creative listening must artfully be sensitive to when the metaphor chosen by a student is taken too far (like equating the agency of the fungus with a similar organic agency within the AI system), but must also pick up on potential in the students' answers that is not yet realized by the students. For example, with the help of the teacher's creative listening, students can keep exploring the comparison between the AI system and the fungal network, but this time focus on the interactions between humans and fungi to get a better understanding of the way AI systems and humans interact. Here, the teacher has the opportunity to take notice of promising seeds in students' answers that could potentially grow into new understandings, like the way humans and fungi are dependent on each other, and can ask questions about utility and care within human-AI transactions. The careful attention given by teachers listening in such a context is similar to the didactic process of "psychologization" (Dewey, 1902/1976, pp. 285-286). According to Dewey, the concept of psychologization highlights the importance of facilitating meetings between the subject matter and students' experiences and the significance of connecting the subject matter to the present circumstances. I argue that teachers' artful listening can alleviate such a psychologization of a subject matter and, therefore, facilitate the kind of creative meeting between students and subject matter that Dewey envisioned.

This paper builds on previous literature that draws from Dewey to understand how listening to perplexity in an educational setting facilitates learning for students and teachers (English, 2009; Garrison, 2010; Haroutunian-Gordon, 2010) by proposing an elaborated account of how listening could be viewed as creative in educational dialogue. More specifically, this paper contributes to the field by showing how listening to originality and meaningfulness creates tensions (interlocking inquiries and ambivalent experiences) that prolong and widen explorations into a subject matter, thereby facilitating connections

to the world of the subject matter. In doing so, creativity is generated not just by turning to a new and novel understanding of a subject matter but also by letting this original understanding be connected back to more traditional ways of understanding the subject matter. Thus, the understanding of a subject matter is enlarged over time by moving away from and back to predetermined expectations on a subject matter, letting creative ideas emerge in both directions.

This understanding of creative listening as having to pay attention to both originality and meaningfulness also aligns with literature using Dewey to explore how democratic discussions focus on differences as well as similarities. For instance, reasoning about the importance of collective meaning-making, Waks (2011) points to a recurring theme in Dewey's writings—that of listeners being mindful and guarding themselves against authoritarian attempts to impose dogmatic truths—stressing the need for critical listening and active participation in creating one's view of the world. However, this kind of listening must also be mindful of the context, being empathic to the way the group understands a subject and not tearing down the grounds on which it stands. Similarly, Bernstein's (2000) reading of Dewey's creative democracy portrays democracy as having to be created anew, continuously reshaped by differences in political thought and ethnic plurality, while simultaneously being formed by efforts to reach consensus and cooperation. It is through the meeting of differences and the efforts to make those divergences come together in collective meaning-making democratic listening is creative (Garrison, 2010). The concept of creative listening proposed in this paper complements the democratic notion of Deweyan listening brought up by Waks and Bernstein by turning its gaze on creative tensions as a means to prolong and widen explorations of subject matter over time, thus opening the world of that subject matter and facilitating enriched educational experiences.

Finally, viewing creative listening as a transactional listening experience also contributes to psychological research on creativity that draws from Dewey to emphasize the way creativity could be characterized as an experience (Glăveanu & Beghetto, 2021). In line with Dewey's view on creativity as being not just an instrumental end to predetermined educational goals but an experience in its own right, recent research on creativity constructs creativity as an experience characterized by four dimensions: openness, plurality of perspectives, non-linearity (an experience of going back and forth), and a sense of uncertainty brought about by moving towards an unpredictable future (Glăveanu & Beghetto, 2021). Interpreting creative listening as an experience of ambivalence also corresponds with research into creativity as a process consisting of mixed feelings and paradoxes (Moss & Wilson, 2014; Miron-Spektor & Erez, 2017). This line of research points to the quick altering of perspectives as important for creative ideation. The concept of creative listening that is proposed in this paper adds to this emerging field of creativity research by emphasizing an experiential sense of creative tension, in which interlocking inquiries create ambivalent experiences that extend the exploration of a subject matter.

To conclude, in highlighting creative listening as a quiet but powerful force in leading educational dialogues, I hope to promote a wider and more prominent role for listening in education, giving a voice to teachers who prefer listening as a way of facilitating creativity in the classroom. Such a silent form of communication can aid the complex explorations of a subject matter and help teachers and students appreciate the sometimes easily forgotten fact that listening is just as expressive as speaking.

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## References

- Adelmann, K. (2012). The art of listening in an educational perspective: Listening reception in the mother tongue. *Education Inquiry*, 3(4), 513-534.
- Al-Samarraie, H., & Hurmuzan, S. (2018). A review of brainstorming techniques in higher education. *Thinking Skills and Creativity*, 27, 78-91.
- Amabile, T. M. (1985). Motivation and creativity: Effects of motivational orientation on creative writers. *Journal of personality and social psychology*, 48(2), 393.
- Bernstein, R. J. (2000). Creative democracy—The task still before us. *American journal of theology & philosophy*, 215-228.
- Bonetto, E., Pichot, N., Pavani, J. B., & Adam-Troian, J. (2021). The paradox of creativity. *New Ideas in Psychology*, 60, 100820.
- Bourdeaud'hui, H., Aesaert, K., Van Keer, H., & van Braak, J. (2018). Identifying student and classroom characteristics related to primary school students' listening skills: A systematic review. *Educational Research Review*, 25, 86-99.
- Brinkmann, S. (2011). Dewey's neglected psychology: Rediscovering his transactional approach. *Theory & Psychology*, 21(3), 298-317.
- Craft, A. (2008). Studying collaborative creativity: Implications for education. *Thinking skills and creativity*, 3(3), 241-245.
- Dewey, J. (1902/1976). *The child and the curriculum*. In J. A. Boydston (Ed.), *The middle works of John Dewey 1899-1924* (Vol. 2). Southern Illinois University Press.
- Dewey, J. (1910/1985). *How we think*. In J. A. Boydston (Ed.), *The middle works of John Dewey 1899-1924* (Vol. 6). Southern Illinois University Press.
- Dewey, J. (1916/1985). *Democracy and education*. In J. A. Boydston (Ed.), *The middle works of John Dewey 1899-1924* (Vol. 9). Southern Illinois University Press.
- Dewey J. (1922/2008). *Human nature and conduct*. In J. A. Boydston (Ed.), *The middle works of John Dewey 1899-1924* (Vol. 14). Southern Illinois University Press.
- Dewey, J. (1925/1988). *Experience and nature*. In J. A. Boydston (Ed.), *The later works of John Dewey 1925-1953* (Vol. 1). Southern Illinois University Press.
- Dewey, J. (1929/2008). *The quest for certainty*. In J. A. Boydston (Ed.), *The later works of John Dewey 1925-1953* (Vol. 4). Southern Illinois University Press.
- Dewey, J. (1934/1989). *Art as experience*. In J. A. Boydston (Ed.), *The later works of John Dewey 1925-1953* (Vol. 10). Southern Illinois University Press.
- Dewey, J. (1938/1991). *Experience and education*. In J. A. Boydston (Ed.), *The later works of John Dewey 1925-1953* (Vol. 13). Southern Illinois University Press.
- Dewey, J. (1941/1988). *Propositions, warranted assertibility, and truth*. In J. A. Boydston (Ed.), *The later works of John Dewey 1925-1953* (Vol. 14). Southern Illinois University Press.
- Dewey, J., & Bentley, A. F. (1949/1991). *Knowing and the known*. In J. A. Boydston (Ed.), *The later works of John Dewey 1925-1953* (Vol. 16, pp. 1-279). Southern Illinois University Press.
- English, A. (2009). Listening as a teacher: Educative listening, interruptions and reflective practice. *Paideusis*, 18(1), 69-79.
- English, A., & Doddington, C. (2019). Dewey, aesthetic experience, and education for humanity. *The Oxford Handbook of Dewey*, 410-422.
- English, A. R., Tyson, K., Hintz, A., Murdoch, D., & Anderson, J. (2023). Pedagogical listening: understanding how teachers listen to students struggle during mathematical sense-making discussions. *Teachers and Teaching*, 1-25.
- Garrison, J. W. (1985). Dewey and the empirical unity of opposites. *Transactions of the Charles S. Peirce Society*, 21(4), 549-561.
- Garrison, J. (1994). Realism, Deweyan pragmatism, and educational research. *Educational researcher*, 23(1), 5-14.
- Garrison, J. (1996). A Deweyan theory of democratic listening. *Educational theory*, 46(4), 429-451.

- Garrison, J. (2010). Compassionate, spiritual, and creative listening in teaching and learning. *Teachers College Record*, 112(11), 2763-2776.
- Gilson, L. L., & Madjar, N. (2011). Radical and incremental creativity: Antecedents and processes. *Psychology of Aesthetics, Creativity, and the Arts*, 5(1), 21.
- Glassman, M. (2004). Running in circles: chasing Dewey. *Educational Theory*, 54(3), 315-341.
- Glăveanu, V. P. (2016). The psychology of creating: A cultural-developmental approach to key dichotomies within creativity studies. *The Palgrave handbook of creativity and culture research*, 205-223.
- Glăveanu, V. P., & Beghetto, R. A. (2021). Creative experience: A non-standard definition of creativity. *Creativity Research Journal*, 33(2), 75-80.
- Glăveanu, V. P., Hanchett Hanson, M., Baer, J., Barbot, B., Clapp, E. P., Corazza, G. E., Hennessey, B., Kaufman, J., Lebeda, I., Lubart, T., Montuori, A., Ness, I., Plucker, J., Reiter-Palmon, R., Zierra, S., Simonton, D. K., Neves-Pereira M. S. & Sternberg, R. J. (2020). Advancing creativity theory and research: A socio-cultural manifesto. *The Journal of Creative Behavior*, 54(3), 741-745.
- Guilford, J. P. (1967). *The nature of human intelligence*. McGraw-Hill
- Gundem, B. B. (2004). Understanding European didactics. In *Routledge International Companion to Education* (pp. 235-262). Routledge.
- Haroutunian-Gordon, S. (2010). Listening to a challenging perspective: The role of interruption. *Teachers College Record*, 112(11), 2793-2814.
- Haroutunian-Gordon, S., & Waks, L. J. (2010). Listening: Challenges for teachers. *Teachers' college record*, 112(11), 2717-2727.
- Imhof, M. (2008). What have you listened to in school today? *The Intl. Journal of Listening*, 22(1), 1-12.
- Kaufmann, G. (1979). The explorer and the assimilator: A cognitive style distinction and its potential implications for innovative problem-solving. *Scandinavian Journal of Educational Research*, 23(3), 101-108.
- Kirton, M. J. (2004). *Adaption-innovation: In the context of diversity and change*. Routledge.
- Martin, J. (2003). *The education of John Dewey: A biography*. Columbia University Press.
- Miron-Spektor, E., & Erez, M. (2017). Looking at creativity through a paradox lens: Deeper understanding and new insights. in Smith, W. K., Jarzabkowski, P., Lewis, M. W., & Langley, A. (Eds.). (2017). *The Oxford handbook of organizational paradox*. Oxford University Press. 434-451.
- Moss, S. A., & Wilson, S. G. (2014). Ambivalent emotional states: the underlying source of all creativity? *The International Journal of Creativity and Problem Solving*, 24(2), 75-100.
- Ness, I. J., & Glăveanu, V. (2019). Polyphonic orchestration: The dialogical nature of creativity. *Dynamic perspectives on creativity: new directions for theory, research, and practice in education*, 189-206.
- Rodgers, C. (2002). Defining reflection: Another look at John Dewey and reflective thinking. *Teachers' college record*, 104(4), 842-866.
- Rud, A. G., & Garrison, J. (2007). The continuum of listening. *Learning Inquiry*, 1, 163-168.
- Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24(1), 92-96.
- Sawyer, R. K. (1999). The emergence of creativity. *Philosophical Psychology*, 12(4), 447-469.
- Skidmore, D. (2006). Pedagogy and dialogue. *Cambridge Journal of Education*, 36(4), 503-514.
- Stroud, S. R. (2007). Dewey on art as evocative communication. *Education and Culture*, 6-26.
- Tanggaard, L., & Krabbe-Juelsbo, T. (2023). Mess. In *Creativity—A New Vocabulary* (pp. 131-141). Cham: Springer International Publishing.
- Torrance, E. P. (1972). Predictive validity of the Torrance tests of creative thinking. *The Journal of Creative Behavior*, 6, 236-252
- Waks, L. (2007). Listening and questioning: The apophatic/cataphatic distinction revisited. *Learning Inquiry*, 1(2), 153-161.
- Waks, L. J. (2010). Two types of interpersonal listening. *Teachers College Record*, 112(11), 2743-2762.
- Waks, L. J. (2011). John Dewey on listening and friendship in school and society. *Educational theory*, 61(2), 191-205.

- Wong, D. (2007). Beyond control and rationality: Dewey, aesthetics, motivation, and educative experiences. *Teachers' college record*, 109(1), 192-220.
- Zembylas, M., & Michaelides, P. (2004). The sound of silence in pedagogy. *Educational theory*, 54(2), 193-210.
- Östman, L., & Öhman, J. (2023). A transactional methodology for analyzing learning. *Mind, Culture, and Activity*, 30(2), 116-132.

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