Democracy & Education

Actualizing the Rights of the Learner

The Role of Pedagogical Listening

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Abstract

This response to Crystal Kalinec-Craig's article on the Rights of the Learner (RotL) aims to take up and build on the author's ideas about how the RotL framework can promote equitable mathematics teaching and learning. Specifically, this response examines how *listening* is implied in the work of teachers who support young mathematicians as they exercise their rights to be confused, claim mistakes, and say and write what makes sense. In doing so, we seek to highlight some of the opportunities and challenges that can emerge for teachers attempting to support all learners to *actualize* these rights.

This article is in response to

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Introduction

Having an opportunity to respond to a fellow author's writing is rare and invigorating. We thank Kalinec-Craig (2017) for her rich contribution to the literature. We believe her work is important for extending the conversation around what makes equitable mathematical discussion possible. In our research as a team, we have learned that educators who engage students in open-ended, inquiry-oriented

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discussion are called on to enact complex listening practices, practices that foster more equitable access to understanding and engaging with mathematics. In our response, we aim to build on Kalinec-Craig's discussion of the Rights of the Learner (RotL). To do this, we highlight the ways the RotL calls on educators and researchers to think more deeply about certain forms of teacher listening implicit in the work of teachers who actively support all learners to *actualize* these rights in the classroom. We begin by outlining Kalinec-Craig's RotL framework.

Kalinec-Craig (2017) emphasized that the general right of every human being to be educated includes particular rights, five of which she highlighted as the RotL framework: (1) the right to be confused; (2) the right to claim a mistake; (3) the right to speak, listen, and be heard; (4) the right to write, do, and represent what makes sense; and (5) the right to feel safe and have one's ideas respected. These five rights were originally developed by Olga Torres, an elementary bilingual teacher and teacher educator. In her article, Kalinec-Craig described how she has interpreted and applied the initial four rights in her practice as a mathematics teacher educator and argued that the fifth right is foundational for the other four to be exercised. To her, the first right—the right to be confused—is significant as teachers engage students in open-ended problem-solving. She brought in current research on the value of "productive struggle" and "perseverance," underscoring the fact that, "ultimately, if students need to have more equitable opportunities to participate in mathematics classrooms, then the students should also have the right to voice when they need support and guidance, without fear of judgment or ridicule" (Kalinec-Craig, 2017, p. 5). Related to the right to be confused is the second right, the right to claim a mistake. Both rights in the framework highlight the fact that mathematical errors are part of the learning process and thus equitable learning environments need to create space for students to experience the power of exploring "the boundaries and assumptions of their own understanding about mathematics" (Kalinec-Craig, 2017, p. 5). The third right in RotL—the right to speak, listen, and be heard—turns attention to students' rights to have their ideas valued as they engage interactively with one another in mathematical discussions by asking questions, sharing insights, and listening to one another. Importantly, Kalinec-Craig was approaching the discussion of teaching and learning from the perspective of seeing all students with an asset, and not a deficit, lens. In particular, she paid attention to how this third right supports emerging bilinguals by valuing the knowledge and experiences they bring to classroom mathematical sense-making. She encouraged teachers to use talk moves, such as revoicing, to broaden participation and enhance students' views of themselves and others as mathematicians. Finally, for Kalinec-Craig, the fourth right—the right to write, do, and represent only what makes sense to you—emphasizes every child's right to diverse ways of expressing his or her mathematical thinking and understanding, ways that are steeped in culture, language, and social practices (e.g., gestures, manipulations of tools, and representations).

Kalinec-Craig's (2017) discussion of learners' rights is grounded in the current discourse around how teachers can promote equity in mathematics education (e.g., Gutierrez, 2017; NCTM, 2014). Indeed, ongoing research in mathematics education has firmly established that

> *school mathematics, at its best, builds upon students' identities to support their academic success but, as historically enacted in the United States, has too often served as a tool to label and separate students in ways that mirror and exacerbate social inequities. Additionally, research has informed the field that culturally relevant pedagogy and culturally responsive teaching support ways of making mathematics more accessible to each and every learner. (Larson, 2017, p. 1)*

In our view, developing mathematics learning opportunities that are culturally relevant, responsive, and accessible presupposes understanding mathematical knowledge as a social construction (e.g., Lave, 1988; Vygotsky, 1978). This means that "in our cultures, in our homes and in our classrooms, we jointly build meaning for what mathematics is" (Kinch, 2017, para. 2). Understanding mathematical knowledge in this way, as opposed to as something prepackaged to be absorbed, suggests forms of instruction that help students to build on existing social experiences from inside and outside of the classroom and also to create new understandings to make sense of their established knowledge and experiences (Schoenfeld, 1992). Kalinec-Craig's (2017) Rights of the Learner framework supports such a view of jointly constructed knowledge by promoting rights that suggest that teachers create real opportunities for students to draw from their out-of-school experiences to make sense of in-school experiences and vice versa. The RotL has the potential to help teachers and students affirm and enact more equitable practices that expand students' access to engaging in and constructing mathematical knowledge and, in turn, their access to the trajectories that mathematical adeptness opens up for individuals in our society.

Importantly, an underlying connection among the first four rights of RotL is that they all point to potential contrasts between the learner's way of seeing the world—i.e., what makes sense and is true or worthwhile to him or her—and the teacher's (and/or curriculum's) way of representing the world and determining truth. While the teacher and/or curriculum may represent the societal norms around what counts as knowledge, Kalinec-Craig's (2017) RotL framework is advocating for the idea that the child's view is to be given equal weight and value within teacher-learner interactions through which mathematical knowledge is being jointly constructed.

The teacher, for Kalinec-Craig (2017), has a significant role to play in helping children exercise their rights. She argued that the RotL framework can best be realized in classrooms where teachers are engaged in *divergent*, as opposed to *convergent*, formative assessment of learners' thinking and learning processes. Kalinec-Craig pointed out that divergent formative assessment values student disagreement and confusion, while convergent formative assessment focuses on how a student's thinking aligns with the teacher's own thinking. In divergent formative assessment, a teacher may view student disagreement or confusion as an opportunity for further engaging students about their ways of

thinking through a mathematical problem. In other words, divergent formative assessment opens opportunities to explore differences in thinking and understanding that emerge in classroom discussion. As Kalinec-Craig pointed out, convergent formative assessment has the potential to close off the teacher's access to the valuable differences in students' mathematical knowledge and to the strategies that children bring from their homes and communities; thus, it could promote further inequities. In foregrounding the distinctions between convergent and divergent formative assessment, Kalinec-Craig was calling for a shift in the teacher's role, a shift away from "teacher-centered, traditional teaching methods that only benefit some students in the classroom and toward a perspective that honors students' diverse resources that they use in their daily lives and bring to their schools" (Kalinec-Craig, 2017, p. 3).

In responding to Kalinec-Craig's (2017) work, we want to make more explicit a particular aspect of teaching that comes into play in her discussion of the teacher's role, namely, the role of *teacher as listener*. Kalinec-Craig pointed out that a key feature of the teacher's role in divergent formative assessment is listening to and attending to the ways the child's thinking contrasts with the teacher's own. The suggestion here is that, in enacting the RotL framework, the teacher is called on to listen differently than just for predefined right and wrong answers. We agree, and we believe there is more to be explicated here around the types of teacher listening that are called for in promoting equitable mathematical discussion. Our response draws on our own research, which is part of a growing body of research, on the ways teachers listen when supporting students' reflective learning. Our focus has been around the type of teacher listening teachers engage in when supporting students' productive struggle toward new understandings during mathematical discussions, dialogue, and collaboration. Our research suggests that teaching practices that foster more equitable access to understanding, engaging with, and generating mathematics involve teachers and students learning how to listen to others' ideas in ways that transform one's given understandings (e.g., Davis, 1996 and 1997; English, 2013; Hintz and Tyson, 2015; Haroutunian-Gordon 2010; Haroutunian-Gordan & Laverty 2011; Waks, 2007 and 2015; Yackel et al. 2003).

Attention to *how* teachers listen to students' ideas is an important aspect for enacting culturally responsive, sustaining and revitalizing teaching (McCarty & Lee, 2014), because it calls on teachers to hear students' contributions and understandings from a position that recognizes that students' contributions are strong and intelligent (Malaguzzi, 1994). Such teaching requires not simply listening for whether students' contributions are "right" or "wrong," a type of listening commonly referred to as "evaluative listening" (e.g. Davis, 1996), but listening in ways that are rooted in an understanding of students' contributions in the context of their sociocultural experiences, resources, and understandings (English, Tyson, & Hintz, 2017; Kazemi & Hintz, 2014; Tyson, Hintz, & English, 2018; Tyson et al., in preparation). The work of the teacher, then, includes listening *to* and *for* students' struggles to find and articulate new ideas and understandings (English, 2013) as they contribute to developing rich, complex, and emergent mathematical knowledge. Through this process, students experience being crafters of knowledge as opposed to receivers of fixed knowledge. Such work of teachers can also be restorative, because it means affirming sociocultural, historical, and political knowledge, understandings, and perspectives that may have been silenced as dominant discourses prevailed (D'Ambrosio, 2001; Kinch, 2017).

In our view, for teachers to deeply support learners in actualizing these four rights and thus place RotL within their practice, teachers must move away from listening "evaluatively" toward engaging with children through more complex and nuanced types of listening. In this response, we draw on our recent study of teacher listening during mathematical discussions in elementary school classrooms to address how particular types of teacher listening are essential to supporting each of the five learners' rights in Kalinec-Craig's (2017) framework. At the center of our recent project is our framework for Pedagogical Listening (English et al., 2017; Hintz, English, & Tyson, 2018; Tyson et al., in preparation). This framework is based in classical and contemporary theories of listening as well as our empirical study of how teachers foster productive and equitable mathematical and social learning through listening. Our Pedagogical Listening framework brings together five types of teacher listening, which we explain in detail further below: (1) *self-reflective listening* refers to listening to and for unexpected, challenging responses from students in a way that initiates the teacher's reflection and, in turn, promotes shifts in practice to better support learning; (2) *empathic listening* refers to listening openly to understand things from the student's perspective by actively suspending one's own judgments, perspectives, feelings, and identity, so that the learner feels heard as a human being; (3) *educative listening* occurs when teachers are listening to and for diverse student struggles with new ideas or interactions, and simultaneously, for ways to support the student to transform the struggle into a pathway for student reflection and self-activity; (4) *supportive listening* occurs when teachers are listening to and for ways to support students to listen to one another, so they learn to consider and learn from perspectives other than their own; and (5) *generative listening* is the listening teachers do, when they listen to and for opportunities for the students' ideas to generate new ideas and directions for the discussion, such that new, previously unforeseen, educational opportunities and goals emerge. Through generative listening, teachers and learners become co-participants in the development of the learning situation. These five listening types are interconnected and serve the overarching aim of informing teachers' thinking and decision-making as a means to foster environments wherein all children are supported to engage with their own and others' insights and struggles as part of democratic learning processes.

We write this response as a team of teacher-educator researchers, two math educators and one philosopher of education, working in the United States and the United Kingdom. Similar to Kalinec-Craig (2017), we position ourselves as White, middle-class, native-English-speaking women. Through our teaching and research, we have had valuable opportunities to learn with and from children, families, and educators from cultures other than

our own, including people who are Latinx, African American, Indigenous, and/or English language learners. We work to recognize the privileges that come from being assigned to dominant US culture. We also work to listen and respond responsively and responsibly to the intersectionalities, needs, and interests of people assigned to nondominant US culture to upend the inequities that persist in our society through institutionalized racism and gender bias. We share with Kalinec-Craig a commitment to understanding the educational role of discussion in mathematics classrooms, specifically, and in teacher-learner interactions more generally. We view listening in teaching and learning as an indispensable part of teaching practices that amplify historically unheard racialized voices, that recognize every child's right to joyful opportunities to learn, and that disrupt paradigms that serve the continual reenactment and perpetuation of oppression and injustice. In the spirit of dialogue, we respond to this article by recreating portions of our research team's discussions around learner's rights and teacher listening that Kalinec-Craig's article has inspired.

We begin sharing our discussion here:

Listening to Uphold the Right to Be Confused (Right 1) and the Right to Claim a Mistake (Right 2)

Allison: What does it mean for a teacher to help students actualize and navigate these rights?

Andrea: It seems that the responsibility of the teacher to listen in particular ways is implied in each of these rights. In other words, if a teacher's practice were to truly embody these rights, then the teacher would have to also engage in listening in complex ways to bring these rights to life for every child in the classroom. Kalinec-Craig's (2017) discussion of the first right is situated in the "productive struggle" discourse, an important feature of the current reform movement in mathematics that is serving to shift the focus away from the end products of learning as "right answers," to the child's thinking and learning processes that are involved in coming to, what is for the learner, a new idea. This discourse can be situated more broadly in philosophy of learning going back at least to Plato, for example in the *Meno*, where the learner struggles to understand as Socrates questions him about the area of a square. Or, more recently, we see attention to the indispensable role of struggle in learning in the work of Dewey, who shows that some form of struggle, which he calls "doubt," "confusion," or "perplexity," is constitutive of all learning processes (e.g., Dewey, 1916/2008, 1933/2008; English, 2013, 2016a). This points to a particular concept of human learning, namely one that views learning not merely as a result or the acquisition of predefined knowledge, rather as a process that entails searching, inquiring, and also running up against the limits of one's prior knowledge and experience; such limit-experiences point to what I have called the indispensable "discontinuities" in learning to describe our felt gaps in learning when things do not go as planned (English, 2013). Kalinec-Craig's notion of having a "right" to be confused underscores that confusion—and I would say similar phenomena like felt difficulty, or uncertainty—is part of, and not a halt in, the learning process. To know when a learner is confused and, further, why she is confused and how to help the learner understand her own confusion and determine a way towards new lines of inquiry requires that the teacher is listening to, and for, moments of confusion, doubt, struggle and the like in students' learning processes. This type of listening is what we have called *educative listening* (English, 2013, pp. 42–48 and 133–146).

Allison: You're helping me think about our shared interest with Kalinec-Craig (2017) around productive struggle, confusion, and mistakes. We have been studying the role of struggle in learning, and you've helped us to think about how struggle can be productive in that it helps us recognize liminality. Andrea, can you say more about this?

Andrea: Yes, what I would add to Kalinec-Craig's (2017) thinking on students' right to confusion and a teacher's attention to this as a productive struggle is that not all struggles are productive. The struggle is in "an in-between realm of learning," a space of ambiguity between right and wrong, known and unknown (English, 2013). This is why looking through the lens of pedagogical listening, and the teacher as a listener, is significant and adds to this discussion of these learners' rights. It puts emphasis on the teacher's responsibility to the child's rights. So, if a teacher notices that a student is confused in a way that would make him or her want to give up, disengage, even want to leave the classroom—as we saw in one of the classrooms in our study—then we can say that, yes, there *is* a struggle, but it is becoming "destructive" (English, 2013, p. 124). In other words, a destructive struggle stops the learning process such that the child no longer wants to learn the subject, or learn with the students he or she is partnered with, and is overwhelmed in some way. In our framework, we use the concept of educative listening as a way of describing the listening that teachers engage in when listening to and for a student's struggle, which includes listening for what is needed—a new question, a new resource, a partner discussion, or even a whole shift in the classroom culture—so that the child's struggle becomes productive rather than *destructive*. What is significant about this way of listening is how it attunes to where students are at in their emergent understandings and, neither ignores student struggle, nor tries to impose the teacher's or other classmates' understandings on a student who is confused.

Allison: I notice you point to the shift happening in the classroom culture and the burden of change is not placed on the child. I think this is an important distinction to

make as we work to understand what it means to listen complexly and pedagogically, not evaluatively.

Andrea: Yes, as we are finding in our research, teachers who listen pedagogically are not listening to measure the child, but rather to measure the environment. They constantly ask themselves if the environment is supporting or hindering the child's ability to learn as a mathematical sense-maker and sociocultural, affective being.

Kersti: The point you make about the moment when a teacher notices that a student is shutting down in the midst of a struggle, such that the struggle is becoming destructive, makes me think about the connections to teacher listening that is merely evaluative. If teachers are only listening evaluatively to hear if the student's thinking is accurate according to predefined ideas of "correct" and "incorrect," then the child's ability to learn with understanding is limited. There is not much to build on or respond to: the student is simply right or wrong. Moreover, the teacher herself does not learn about the child's reasons for thinking a certain way, so is not able to guide further learning in ways that are appropriate to that child's needs. If this is where the listening stops, then a student's "shut down" may be inevitable. Importantly, with regards to Kalinec-Craig's (2017) discussion, two of the learner's rights—to be confused and to claim a mistake—are not being appreciated when the teacher only listens evaluatively. Evaluative listening, as research shows, tends to be a common kind of listening teachers do in mathematics instruction, that is, they may ask themselves, "Is the answer right or wrong?" But what we are learning is that there are many teachers who are listening in more complex ways as they embrace the powerful role of mathematical discussion in their teaching (English et al., 2017; Tyson et al., in preparation). We are learning that complex pedagogical listening is critical for enacting practices that support equitable access to constructing mathematical knowledge. As you pointed out, Andrea, teachers need to listen educatively with respect to the first right in order to identify, hear, and engage with student confusion and other manifestations of struggle.

I would add that certain types of teacher listening are implied with respect to actualizing the second right that Kalinec-Craig (2017) describes as the right to "claim a mistake and hold a misconception." Kalinec-Craig argues that "by allowing children to claim a mistake while solving problems, children explore for themselves the boundaries and assumptions of their own understanding about mathematics" (p. 5). If a child is holding on to a belief that may, by the teacher's or curriculum's standards, be erroneous, then there are certain demands on the teacher's listening in order to allow the child to hold and examine his or her current conception openly and with conviction, and not be shut down (Smith, DiSessa, & Rochelle, 1994). In particular, it demands that the teacher listens empathically. *Empathic listening* (Waks, 2007) is necessary here, because the teacher has to see the world from the student's view; to take this stance, as Waks makes clear, the teacher has to set aside his or her whole "self" including his or her prejudices, self-understandings and identity, as well as assumptions about knowledge and truth, thereby allowing the learner to explore new ideas without being judged. Empathic listening is what allows the teacher to gain some insight into mathematical and social learning from the child's perspective as well as insight into the child's thinking from a mathematical, and social perspective. Such listening helps the teacher learn how to better support the learners' ongoing productive participation in mathematics and in the learning environment as a whole.

Andrea: Your point about the teacher gaining insight into how to better support the learner through empathic listening also connects to Kalinec-Craig's (2017) idea of the teacher as a learner. She calls for a different image of the teacher than a traditional teacher-centered model, where the teacher holds the knowledge and passes it on, and instead often expresses that the teacher is, in certain ways, a learner herself. In connecting the idea of the teacher as learner to the first two rights, there is a tension worth drawing out that makes actualizing the rights, especially these first two, very difficult for teachers in practice. Kalinec-Craig writes about how hearing students' struggles, diverse approaches, questions, and problems during mathematical discussion can help teachers learn about their students' thinking, and in turn, the teacher can understand the need to revise a given task. I agree, and there is something more to be drawn out in this discussion. A view of the teacher as learning from students implies that the teacher is listening for the moments in interactions with students that signal to her that she could be wrong or might be confused about what the learner is thinking or expressing. We saw this in our study, when teachers would draw out students' views about a mathematical problem and at some point in the discussion would say things like "Wait, now I'm confused." This type of listening is what we have called *self-reflective listening*, following the work of Haroutunian-Gordon (2010).

Kersti: Yes, that is why we include self-reflective listening at the foundation of our framework, because it is a necessary part of being a teacher who listens to the ways learners challenge her given views and beliefs and thereby learns through the interactions with students. Self-reflective listening is always demanded in equitable mathematical discussions because the teacher has to be willing to reflectively consider his or her own values, knowledge, or practices. At the same time, such listening calls on teachers to question and actively change these if he or she finds that they are hindering the child's sense

making by forcing alignment with the teacher and thereby robbing the student of the space and time to do his or her own reckoning. This listening calls for teachers to have humility (English, 2016b) in order to truly be receptive to students' sense-making.

Allison: So, what we are saying is that supporting students to be learners who exercise the first and second rights in the RotL framework, that is, who can be mathematicians who are confused and explore mistakes, calls on teachers to listen in ways that move beyond evaluative listening into listening that is educative, empathic, and self-reflective. It also makes me think about how the complex, but also mathematically productive, forms of listening like supportive listening and generative listening are demanded when teachers are upholding these rights. When there is space in mathematical discussions for students to think aloud within confusion and hold their current conceptions (Smith et al., 1994), new lines of inquiry emerge for discussion between students. To listen in these complex ways, teachers must press beyond evaluative listening and develop pedagogical listening that honors children's mathematical sense-making. It seems that on another level, complex, multilayered, pedagogical listening also recognizes that asking children to share their thinking can be risky, and that how the teacher—and peers—respond to children's emergent sense-making (e.g., positioning a child competently) shapes whether the learning is productive.

Listening to Uphold the Right to Speak, Listen, and Be Heard (Right 3)

Kersti: There were other ways that the teacher's listening is implied in how Kalinec-Craig (2017) discusses the teacher's attention to the rights in practice. I am thinking about the third right, the right to speak, listen, and be heard. This right ties the other three rights together in my mind. When children are responded to with the assumption that they have the right to be confused, the right to claim mistakes, and the rights to say and write what makes sense, what is implied is that children have the right to be heard in the midst of being perfectly imperfect; it also implies that the teacher is working from a stance that learners' ideas make sense (Malaguzzi, 1994). What is more, for children's confusion, mistakes, *and* sense-making to be heard, children need to be responded to in responsive and responsible ways. Such a response requires that a teacher listen in a responsive and supportive way, or what we have called *supportive listening* (Hintz and Tyson, 2015). Such listening calls on the teacher to help facilitate listening between students so that the learners are not only hearing, but also genuinely working to make sense of, respond to, and build on each other's ideas. This interaction among children and teachers facilitates children feeling heard. One way a child will know if his or her idea is being heard and valued is if his or her teacher and fellow students seek to understand the idea and try to build on it. Supportive listening involves at one and the same time listening to make sense of children's ideas *and* listening to support a nurturing environment wherein classmates listen and work to make sense of each other's ideas.

Embedded in this idea is a key presupposition that needs to be taken into account, that is connected to Kalinec-Craig's (2017) point that teachers need to start with the belief that "every student brings a wealth of knowledge, experiences, and skills that they can use to learn mathematics" (p. 6). Implied in this is the teacher's belief that children have something to say and that their peers and teacher will benefit from hearing and making sense of what children have to say about their lives, cultures, experiences and mathematical sense-making. Beyond this, for teachers to uphold learners' rights to speak, listen and be heard, in practice, means teachers and other students need to actually have learned how to respond responsively and responsibly to what they hear. This relates to the idea of what I call being "response-*able*." In other words, in practice, teachers affirm their belief that students have something to say by responding responsively and responsibly to what students say and by supporting other children to learn to do the same; this is what is meant by listening supportively.

Allison: I love how you say "perfectly imperfect" and that a child's idea is made sense of by working through it and with it. Let's think about some of the particular strategies Kalinec-Craig (2017) points us to use, such as revoicing. The mathematics community has recognized revoicing as a way to support students' ideas to be heard, understood, and carefully considered. As she notes, "revoicing affords students an opportunity to learn from each other while exercising their third right" (p. 6). We have learned from teachers that revoicing helps ensure a child's ideas are heard accurately, allows for others to hear ideas more than once (when paraphrased in different ways), can broaden participation and understanding, and can provide an opportunity for children to "try on" ideas that are not their own. At the heart of revoicing is a commitment to hearing and thinking within others' ideas—including when those ideas are emergent, or what Jansen, Cooper, Vascellaro, and Wandless (2017) call "rough draft talk" (pp. 304–307). I'd like to add on to these ideas by thinking about how revoicing and supportive listening are related. When a teacher revoices an idea, or invites one student to revoice another student's idea, a space is created for that idea to be heard again by everyone in the classroom community: the speaker (the author of the idea), her classmates, and the teacher. Supportive listening, as defined in our Pedagogical Listening framework, focuses on listening for ways to support students to listen to one another, so they learn to hear and consider perspectives other than

their own. Therefore, when an idea is revoiced, it is not only an opportunity to hear that thinking again, it is also an opportunity to practice listening to and considering another's idea and potentially shifting one's perspective.

Kersti: Yes, Allison, your point helps to illustrate how "the right to speak, listen, and be heard" importantly reinforces this idea of thinking *within* others' ideas and how such thinking is vital for learning. I think in mathematics education discourse today we often focus on student talk. But I'd like to propose that learning starts with listening, feeling heard, and *then* speaking. A brilliant Latinx fourth-grader I worked with a few years ago described it like this: "When I don't listen, I won't have anything to say, I will be speechless. When I do listen, I hear new ideas that help me to solve new problems" (Tyson, 2011). This child recognized that learning is borne from listening to others' ideas. Thus, teachers' supportive listening helps children feel heard and it fosters space for new ideas to emerge, but most importantly, when a teacher listens and responds in supportive ways, she/he is modeling supportive listening for students by showing all students how to listen and make sense of their peers' ideas, as well as their own ideas. This work has the potential to shift our perceptions about whose knowledge is worth hearing.

Allison: As I'm listening to our conversation here, it strikes me that enacting supportive listening is sophisticated work for teachers and students. As teachers, we must ensure that the students, whose ideas are at the heart of the discussion, are positioned competently—as if to communicate to them, "We are focusing on your idea to understand your thinking. Your thinking is helping us as mathematical sense-makers right now." We propose that when students feel heard from their teacher's and classmates' supportive listening, students will come to trust that when they share their ideas, their thinking will be valued, understood, and viewed as an important contribution to collective problem-solving. To embrace and support children to realize their third right means approaching revoicing with a supportive listening stance to create a culture where "speaking" is about having your ideas out on the table, "listening" is about making sense of and engaging with others' thinking, and "being heard" means you feel your ideas are understood and valued.

Andrea: This is key, and let's push this further. Again, taking the first three rights together and trying to uphold them all at one and the same time is difficult. It can be risky for the teacher to take up students' newly shared ideas, errors, or confusions in moment-to-moment classroom interaction. For while it is true, as Kalinec-Craig (2017) points out, that there are some errors that teachers can and should plan for, teachers cannot always predict where a discussion might lead, and what social-emotional experiences might arise when students engage in generative, interactive discussions. Kalinec-Craig argues that a student's mistake or a teacher's mistake can become a new topic for a "debate and challenge of ideas" (p. 5). We see this kind of allowance in our research when some teachers were able to make these shifts in their planned lessons and allow children's ideas to become the new topic of discussion. Sometimes in the classroom and sometimes later in the recall interviews with teachers, teachers expressed that they were surprised by a student's thinking. At times, teachers were able to allow the student to become the leader of the new topic, while at other times, teachers found this difficult and not ultimately possible in that moment. When teachers listen with curiosity and successfully build on the children's new ideas as they unexpectedly emerge, and also support other students to revoice, hear, and make sense of that child's idea, *generative listening* comes into play. With this term, we are directly drawing on Davis's (1996) concept of "hermeneutic listening," whereby the listening a teacher does generates new avenues for the lesson in a way that transforms the teacher's thinking about the learners, the content, and/or how to teach. In line with Davis (1996), Yackel, Stephan, Rasmussen, and Underwood (2003), and our own previous classroom studies (Hintz & Tyson, 2015), our recent research is showing that generative listening is very ambitious, at least in part, because it requires that the teacher diverge from the set curriculum and let go of the predetermined direction of the lesson, while keeping educational goals in mind.

Allison: So, I think we could say that if there is the opportunity to move away from the originally intended discussion goal in order to pursue new emerging directions, then there is the potential to broaden each student's opportunity to learn and also to broaden learning opportunities for the teacher and the classroom community as a whole.

Listening to Uphold the Right to Write, Do, and Represent What Makes Sense (Right 4) and the Right to Feel Safe and Have One's Ideas Respected (Right 5)

Allison: As we think about the fourth right—to write, do and represent what makes sense—it may seem that there are limited opportunities for listening when students are expressing themselves through writing, drawing, or using materials. Although there is not spoken word to hear, as ideas are shared through written artifacts or other representations, there is a unique opening to listen for what lies within students' representations (Rinaldi, 2001). Kalinec-Craig (2017) draws on Cognitively Guided Instruction (CGI), saying, "Teachers can learn a great deal about mathematical thinking and understanding from children's multiple mathematical representations" (p. 6). CGI researchers (e.g., Carpenter, Fennema, Franke, Levi, & Empson, 2014) have taught us just this.

When we approach children's work with curiosity for their ideas and view children as sense-makers, we learn about their thinking. Using a representation or any written artifact as a beginning, we can kneel beside a child or place a child's work in sight for a class discussion, so we can ask them to tell us more about their ideas. When we find ourselves confused as we study student work (experiencing the first right of RotL ourselves), Kalinec-Craig points us to the thinking of Elham Kazemi and Megan Franke, which has been immensely valuable to me. I would add the thinking of mathematics educators Angela Chan Turrou and Nick Johnson, who have helped me to learn that a representation is an artifact we can engage with and use as a tool to hear and understand more about a child's thinking. In this way, we are all sense-makers working to hear, understand, and support the child's ideas.

Andrea: Yes, absolutely. The other thing that strikes me as significant in including this fourth right is that Kalinec-Craig (2017) is emphasizing that teachers can shift from talk to other forms of expression, and these forms respect, in particular, those students who remain silent and may be more comfortable participating actively by listening more than talking. When teachers are listening empathically and supportively, they notice that some learners need other ways, aside from verbalization, to express their ideas. This reminds me of a classroom in our study, where a child didn't want to say what "half" means; rather, she preferred drawing it, so the teacher asked her to come up and draw, and the girl drew a butterfly on the board. The butterfly and its connection to the concept of "half" then became the topic of discussion. By providing these opportunities, teachers are acknowledging that these other forms of expression are equally valid. Teachers can shift from talk to written, drawn, or other forms of expression and back in ways that encourage students to remain engaged in mathematics.

Allison: And teachers can use a student's representations to bring that child's thinking into the conversation. We can give voice to children who participate actively through listening by displaying their written or drawn ideas—and the teacher, after consulting with the child, can explain the thinking or the child can explain her own work.

Kersti: Before we conclude, I think the fifth right that Kalinec-Craig (2017) only points to in a footnote is significant. She says the fifth right is for children to have a safe space in which their ideas are respected. What can be added to this is that while teachers may value the idea of creating a safe space, in practice, this has to occur over time by upholding the rights one through four. In other words, a safe space is born out of the ongoing interactions that support students to become more comfortable with voicing, listening to, and representing ideas, making and claiming mistakes and being confused without being judged. This is why, as our research is beginning to indicate, all five types of listening are needed to uphold the Rights of the Learner and help to create and sustain a safe classroom culture over time. It is important to recognize that, for the teacher, this is risky and complex work because it is likely that upholding all the rights will come into interplay in the classroom at the same time and may sometimes collide with one another. In other words, despite the teacher's best effort to create a safe atmosphere where all these rights can be exercised by all children, these efforts can "backfire," and teachers need to listen for these moments of collision (Dobson, 2014). We saw this in one classroom we observed, when a teacher who consistently supported children's expression of confusion and making mistakes (Rights 1 and 2), showing self-reflective and educative listening, came to a situation in which a child unexpectedly became overwhelmed when he verbalized and claimed his mistake (Right 3) and then, after the lesson, fell into tears. To uphold the right to a safe classroom atmosphere (Right 5), this teacher was able to shift his listening toward empathic listening to understand the child's feelings and perspective and was subsequently able to demonstrate generative listening by shifting the entire lesson from a mathematics lesson to a social lesson. All the children in the classroom were supported by the teacher to then listen to one another's social experiences around this boy's, and their own, feelings and rebuild the trust in the classroom (showing the teacher's supportive listening). So, yes, teachers need to aim toward creating a safe space for learning, but whether a learning space is truly safe, from the learners' perspectives, will be revealed to the learners by what teachers listen for and how they respond to what they hear over time. So, teachers have to be able to also listen to the environment to see if their image of what makes a safe space *aligns* with the students' experiences—and if it does not, then they need to be prepared to seriously reconsider what is needed and shift thinking and practice accordingly.

Conclusion

Inquiry-oriented mathematics teaching demands that teachers take more risks as they create invigorating and challenging mathematics classrooms for all children, such classrooms that, as Kalinec-Craig (2017) emphasized, "encourage students to take more risks in their thinking and to push the boundaries of what they know or assume to know about mathematics" (p. 9). A final point we seek to highlight is that we think there is added complexity to this work when we consider how teachers might uphold these five rights all at the same time for every child. Viewing teaching through this lens of the teacher as "pedagogical listener" can reveal how the very acts of listening to children's thinking and supporting children's five rights to learn make teachers more vulnerable to being wrong, to struggling, and to becoming

confused themselves. This is especially true during the time when teachers are building up their classrooms as contexts of safety and respect and are still discovering, with the children, what is needed for all children to feel safe, valued, and respected. Such work demands that teachers cannot be afraid to show humility and expose themselves as capable of being wrong—as being human.

We think work in the area of learners' rights to learn also opens up new important questions around what supports must be in place in our school contexts to afford the dynamic teaching and learning that upholds these rights. How might educators and policymakers push for conditions that create safe spaces within schools for children *and* teachers to navigate learners' rights by listening to and hearing one another? Given the realities of teaching with standards, curriculum pacing guides, and high-stakes testing, if teachers are to genuinely engage in actualizing learners' rights, then, for us, they need the support from school and community leaders. They need support from leaders who recognize learners' and teachers' rights are intricately tied together and who support teachers by crafting safe school and district atmospheres through policies that encourage teachers to take professional risks. This may involve, for example, developing evaluation systems that help, instead of hinder, teachers to grow their practice in these ambitious ways—which likely includes providing space for experimentation and reflection on things that do not go as planned. Such atmospheres need also to be present in preservice teaching programs that lay the foundation for our next generation of teachers—and, in turn, their students.

In conclusion, as Kalinec-Craig (2017) pointed out, there is a need for teacher educators to be cognizant of the Rights of Learners and to invite preservice teachers into the conversation of what it takes to address and uphold students' rights. We agree, and we would add that it means acknowledging that this work takes place in a vulnerable space—a space of sometimes not knowing, not being sure, or not yet understanding another person's ideas. Such vulnerability can be fruitful if is arises from teachers' attempts to actualize all learners' rights, and this, for us, must include learning to listen in deep, pedagogical ways, which help transform thinking and practice to support all learners' mathematical and social development.

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