The 2020 AERA theme is The Power and Possibilities for the Public Good: When Researchers and Organizational Stakeholders Collaborate and is a call to “to address educational challenges through policy and community engagement and to work with diverse institutional and organizational stakeholders.” Can such engagement of educational researchers with and across diverse stakeholder groups contribute to educational change?

This call for cross-organizational collaboration, supposed to bring together all those engaged in education, either as doers or as critical observers, is perfectly in tune with the motto that has always guided my professional activities: The educational researcher, whose job is to inform educational processes with her observation-inspired insights, cannot remain an idle storyteller and must, instead, join forces with those who participate in the process of educating. If her research-generated stories do not make it to those who bear direct responsibility for the success of educational endeavor, she has worked for nothing (well, except her academic career). Most recently, I acted on this belief when joining my colleague Jill Adler and her team in their Wits Maths Connect Secondary (WMCS) project, the concerted, state-funded attempt to combine research on teaching mathematics in 20 South African high schools with an immediate attempt to reform this teaching. An interim result of this project is a monograph with the title that tells the story of our commitment to the undertaking promoted in the theme of 2020 AERA meeting: Research for educational change (Adler & Sfard, 2017).

On the face of it, neither the AERA call for cross-sectors unification nor my own need for collaboration with practitioners sound quite new. Obviously, most researchers recognize the importance of their engagement with those who bear...
the direct responsibility for the process of educating. Many of my colleagues are actually involved in diverse practice-directed collaborations. Still, there is a novelty in AERA’s present call. So far, most cases of researchers-practitioners collaboration were local initiatives, implemented by individuals or teams, each aimed at a specific project, such as WMCS. This activity resulted in a rather erratic array of separate undertakings, hardly combining in a consistent sustainable whole. But if the pool of available forces remains fractioned, with each of these forces pulling in its own direction, a change

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has little chance to happen. This present call for unification seems to stem from the understanding that to bring any real change and to make it last, collaboration must be upscaled and possibly institutionalized. The partnerships called-for this time are between collectives rather than just individuals. More specifically, the unifying effort is to be shifted to the level of organizations, and not just to any organizations, but to those major ones, such as AERA and NAE, that bring together practically all the relevant parties. Indeed, the organizers of the 2020 Annual Meeting declare their “wish to invite to the Annual Meeting not simply individuals who are members of organizations” but rather organizational leaders.

Your question may now be restated as follows: Is it justified to expect that the proposed upgrade of cross-professional collaborations from individuals to organizations and institutions would bring a decisive change in how educational change happens and endures? To this, there is no straightforward answer, I think. Although nobody is likely to question the importance of the present initiative, its success, being dependent on the quality of cross-organizational communication, cannot be taken for granted. At the risk of accusation of being a killjoy, I have to admit I am not overly optimistic. I find it difficult to believe that just bringing all the change-seekers together and making them talk can be any more useful than making students learn by just sitting them one next to each other. Just as children must change some of their discursive routines before their conversation can result in a change called learning, so may diverse educational agents be unable to reform education without reforming some of their deeply rooted conversational habits.

Given your focus on thinking as a form of discourse and reframing how learning, particularly in Mathematics is understood, what would be some of the major lessons the field of Educational Change can learn from your work and experience?

The fears with regard to cross-organizational communication are a direct outcome of my work as researcher. Being convinced about the centrality of discourses in any human undertaking, and in learning in particular, I have focused all my studies on communication (Sfard 2008, 2018). If I am to name one relevant piece of wisdom I gained from this three-decades long

http://www.aera.net/SIG155/Lead-the-Change-Series
research, it is this: if people fail in joint undertakings, such as collaborative learning, it is usually because their deeply entrenched communicational routines do not necessarily help in arriving at a synergetic effect. To make things worse, these communicational shortcomings remain mostly unrecognized and as such, tend to persist. True, in the last years, the awareness of this issue has steadily increased. Quite a number of systematic attempts have already been made to turn classroom communication more “dialogic”, and thus more conducive to students’ joint endeavors (for a state-of-art reports on dialogic pedagogy and the explanation of the way the term dialogic is used in this context see Mercer Wegerif & Major, 2019). Yet, these attempts are rarely truly successful, if only because of the paradoxical nature of this special educational task: for ineffective communicational habits to be changed, effective communication must already be in place!

Communication-centered research on learning leads also to more specific understandings about factors likely to obstruct inter-organizational communication. To begin with, every human community, whether formally institutionalized or not, has its own discourse. This means, among others, that each of them has its distinct identity-building routines and a unique set of identities that suit its members. From here it follows that even when engaging in a joint enterprise, those who belong to different organizations may, in fact, be trying to accomplish different tasks. Just think about the systems of criteria for success inscribed in the discourse of researchers, and you will realize how different it is from those that guide practitioners. Indeed, the public responsibilities of the researcher are not the same as those of educator and the researcher’s ability to fulfill them will be measured with the help of criteria quite unlike those that apply to practitioners. Thus, when a researcher and district superintendent face the problem of, say, students’ widespread failure in STEM subjects, their shared desire to change the situation, even if keenly felt by both, is still only one of the forces that will fuel their attempts to act. Among other factors, sometimes not any less powerful, is their longing for personal or organizational success, which will be measured according to criteria inscribed in the discourse in which they forge their identities: the discourse of academia in the case of the researcher, and the highly politicized public discourse on education, in the case of the practitioner. The respective discourses, being institutionally enforced, do not, as yet, show any signs of rapprochement.

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It is also important to keep in mind that organizational-institutional discourses are replete with routines through which members of these organizations position themselves in relation to non-members. This is probably why the authors of the AERA document found it necessary to state something that otherwise would have gone without saying: that in reconnecting with educational organization such as NEA, researchers should engage organizational leaders “as equal-status professionals”. There is an urgent need to free our institutional discourse from the invisible pitfalls that obstruct the conversation between researchers and those who live outside the walls of academia. Yes, we need to educate ourselves for a dialogic communication the way we try to educate others (and nobody can educate the educator except for the educator herself). We must take this uneasy task upon ourselves if we are truly committed to the project of reconnecting with NAE and beyond.

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In the words of Wittgenstein (1967), this is a call for “erect[ing] signpost at all junctions where there are wrong turnings” (p. 47). Those who wish to spearhead the change must have a clear picture of what it is that needs to change.

My research has showed time and again that, more often than not, what happens around us is the product of our tiniest, automatically performed discursive moves rather than of those macro-action that we can name, discuss, plan, and change at will. Thus, in the already-mentioned South African study we saw how a good-meaning teacher, through his minute discursive moves – the words in which he chose to present mathematical tasks, the brief phrases with which he invited the students to participate – unwittingly deprived the learners of proper opportunities for learning (Sfard, 2017). In another recent study, Candia Morgan and I showed that in England, some elusive, but critically important aspects of school mathematical discourse have been changing incessantly over the last 30 years (Morgan & Sfard, 2016). This made us realize that those who claimed a gradual decline in students’ achievement might have been grounding this assessment in comparison between

Educational Change expects those engaged in and with schools, schooling, and school systems to spearhead deep and often difficult transformation. How might those in the field of Educational Change best support these individuals and groups through these processes?

Call me single-mined, but here too, I want to talk about the need for a change in discourse. This time, it is the discourse of practitioners that has to be transformed. In other words, my advice to Educational Change people would be to try to open the eyes of the educational transformers to discursive bumps even spread along the roads traveled by the teacher, the curriculum designer and the policy maker.
things that should not be compared: after all, different mathematics was learned by the students of different periods. In result, in their attempts to make a change, the reformers were likely to direct their efforts at a wrong target.

All this and more. Our habitual little moves, usually too brief to be noticed, constitute the invisible crevices through which the prejudice would often enter our system. In result, we may be doing things that go against our own better judgment. This, for instance, is what happened to a teacher in one of our studies, when she unintentionally contributed to the task of constructing her students’ identities of failure or of social inadequacy (Heyd-Metzuyaning & Sfard, 2012; Heyd-Metzuyanim, 2015). No social creature – no person whose thinking is, of necessity, her unique combination of the surrounding discourses – is immune to this kind of failure. The only way to cope is to teach ourselves and others to be always alert to the possibility that our own deeply rooted discursive habits may lead us astray.

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The recommendation I draw from decades of reflection if straightforward: We must stop teaching mathematics for all the wrong reasons. Or, if you wish, we need to think deeper about stories on mathematics that float around. Only when we thoroughly revise them will mathematics and the mathematics learner have the proper opportunity to flourish.

The way we talk, thus think, about mathematics and the things we tell about it sterilize the soil in which mathematical competencies of the students are supposed to grow. No, it is not because of their usefulness in life that we insist on force-feeding all students with relatively advanced mathematical topics. Just think: when was it the last time that you needed to use a derivative or to cope with a linear or quadratic inequality (as opposed to a social one)? The truth is that quite early in their school career, students are given all the opportunities they need to get acquainted with the mathematics that, one day, they may find truly necessary. And no, the slogan “mathematics for all” is not justifiable by the fact (whose veracity I am not going to question) that mathematics is an exquisite example of human achievement and an integral part of our culture. Although poetry is also one of such achievement, nobody
expects school students to exercise writing poetry day after day, for twelve years. It is also not because mathematics classroom is a gym for training all-purpose brain muscles. The possibility of developing general “mental faculties” by gaining facility with a particular subject has not withstood the test of empirical studies. In a similar vein, one can question even the seemingly indisputable claim that mathematics needs to be taught because of its empowering impact. The narrative about empowerment through mathematics does not stand alone and is only held in conjunction with stories that associate mathematical skills with merit and power. It sounds convincing only in societies, in which arguments dressed in numbers and expressed in a scientific or pseudo-scientific manner, speak louder than other warrants.

Of course, there is a grain of truth in some of these claims, but even when taken together, all these defendable truisms constitute only a part of the story. In those societies in which mathematics functions as a hegemonic discourse – and in today’s globalized world this seems to be the case all over the planet – the strongest, if covert, incentive for teaching the subject is the fact that mathematical achievement is being employed as a tool of selection. These days, it is widely used as an instrument for deciding about who should be given an access to life-changing opportunities and who should be left out. If the predictive power of this instrument appears to be empirically grounded, it may be due, at least to some extent, to the fact that the narratives of future success or failure constructed with its help function as self-fulfilling prophecies (Sfard, 2013).

My final conclusion may be stated as follows: If we want mathematics learning to flourish, and if we are concerned with the general issues of social justice, we have to reconsider our common narratives about mathematical skills as a necessary ingredient of identities of success. Rather than featuring these skills as a measure of human “quality”, we may wish to tell narratives about mathematics as a rewarding intellectual activity, potentially enhancing one’s ability to tell useful stories about the world around us. The revision of the narratives will require a thorough modification of our current discourse of success. I believe that once we take care of the necessary discursive transformations, the harmful practice of employing mathematical achievement as a gatekeeper to educational and occupational opportunities will take care of itself.

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Where do you perceive the field of Educational Change is going? What excites you about Educational Change now and in the future?
I cannot predict where the field of Educational Change is going – my crystal ball broke while trying to keep up with the world’s wildly accelerating changes. But I can say where I would like the field to go, or at least, what I think its experts should be trying to do. After all I said so far it will not sound surprising, I guess, if I declare that I want these experts to give more attention to the issue of change in discourse. Indeed, perhaps the most important task of educators, at least as I see it, is to educate for helpful discourses and to try to make sure that the stories students unthinkingly endorse do not lead them astray. People forge their own narratives from publicly available materials and in this process, most of them freely help themselves to commonly held narratives. Some of them never consider alternatives, some others do reflect on their choices, but nobody is entirely foolproof to decisions that, on a deeper thought, would have been deemed as mistaken. The fact that a narrative is widely endorsed is taken by those who use it in their own storytelling as an evidence of its being helpful, thus good. It rarely occurs to the storyteller that it may be the other way around: that he may consider a story as good only because so many other people endorse it.

Educating the learner for a constant wariness of their own discourses is not a simple matter. In many respects, it is more intricate than teaching complex scientific topics. Even more difficult is the task of making sure that a person already capable of reflecting on her discourses and endorsements would act on the insights she gains, if any. In most cases, taking the criticism seriously would imply parting ways with discourse communities that, so far, constituted an integral part of one’s identity. Fostering the courage to do so is a challenging task. Its difficulty, however, should not deter us, especially in the times of growing cultural and political entropy, when one is bombarded with conflicting narratives on an hour-by-hour basis. Within all this confusing diversity, nobody is exempted from making difficult choices. Today, more than in any other historical period, giving up the possibility of making people feel personally responsible for their discourses and for the stories they tell and act upon would be equal to betraying the very gist of the Educational Change field’s mission.

“If these educational aims are endorsed, then the first mission of the Educational Change researcher is to look for ways in which to develop students’ ability to reflect on their own discursive practices. As Heidegger might say, this means turning the learner’s thinking from ready-to-hand to present-at-hand (Heidegger, 1962). The complementary task is to build instruments of discourse analysis with which to actually fight the language-induced ‘bewitchment’ (Wittgenstein, 1967, p. 47). Finally, there is the need to develop ways in which to foster the learner’s courage and determination to actually employ all these tools in the attempt to change their own thinking.”
References


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Results of Sfard’s theoretical and empirical research guided by this communicational (or “commognitive”) framework and focusing mainly on the learning of mathematics have been summarized in the book *Thinking as communicating: Human development, the growth of discourses, and mathematizing* (2008). Her other volumes, edited or co-edited, include *Learning tools: Perspectives on the role of designed artifacts in mathematics learning* (2002), *Learning discourse: discursive approaches to research in mathematics education* (2003), *Development of Mathematical discourse: Some insights from communicational research* (2012), and *Research for educational change: Transforming researchers' insights into improvement in mathematics teaching and learning* (2017).

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