pants in the conversation and are willing to help other participants develop in ways that support "any act or actor as long as damage to others is avoided" (ibid).

« 10 » Too often, conversations break down (participants defect) or fail to begin because of existing prejudices. In developing my ideas, I have been particularly influenced by the critical pedagogy of Paolo Friere, who states, "Any situation in which 'A' objectively exploits 'B' or hinders his or her pursuit of self-affirmation as a responsible person is one of oppression" (Freire 1996: 37). Refusing to interact with another individual can be seen as a form of oppression. This can be experienced or observed in any social setting, not just in the classroom. As personal examples, in recent times I have had my friendly greetings ignored when walking in the village where I live. I have been refused further conversation when the person I was speaking with discovered I held different political views from theirs. I have experienced friendly conversation becoming awkward and guarded when it became known that the participants had different religious affiliations. Many years ago, I described CT as "the art and science of fostering good will" (Scott 1993:167). I continue to hold that view and continue to propagate it as best I can. It is a pleasure to encounter others who also subscribe to that view.

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The University Lecture Room and the School Classroom: Does the Stage Affect the Acting?

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> Upshot • I establish similarities between the author's teaching approach and my perspective toward teaching and learning. I also highlight some important differences between the didactic situation of a university lecturer and that of a schoolteacher that may be pertinent to the principal issues we discuss in our articles.

« 1 » Philip Baron's target article concurs with most, if not all, notions I discussed in my target article of this issue (Borg, Hewitt & Jones 2016). The following are examples of some fundamental common perspectives in the two articles:

- Teachers' sensitivity to learners' experiential worlds (Glasersfeld 1995) and to learners' views of knowledge during the teaching and learning process is the crux of Baron's self-reflective questions (§40) and of my M-N-L framework.
- Baron discusses the "teachback method," which is an explicit venture by teachers to formulate second-order models of their students' understandings that they may and, I believe, should use to review the body of knowledge they intend to teach in that lesson or in successive lessons. Again, the teacher's goal to learn about the students' thinking processes and knowledge construction is a recurring theme in both of our articles.
- Conversation, in the sense of Gordon Pask (e.g., 1975a) and Paul Pangaro (2001), is regarded by Baron as the fundamental vehicle to act upon their sensitivity to learners' thinking and to enable teachback. Although my emphasis on conversation theory is not as explicit as Baron's, readers can appreciate my implicitly high regard of verbal correspondence between the teacher (myself) and the students through the protocols taken from the video recording of my lessons which I used to exemplify themes that emerged from the preliminary analysis of the lessons with the help of the M-N-L framework. Like Baron, I find a level conversation playing field with the students instrumental to helping students become learners.

« 2 » Hence, this commentary is not built around some issues of discord between Baron's perspective of teaching and learning and mine. Rather, I hope to bring out the significant contextual and situational differences in our endeavor to practice our radical constructivist sensitivities in our daily work as educators that may further develop the discussion about constructivist teaching. Baron is a university lecturer. I am a schoolteacher. Other than the nomenclature of our job titles, what other differences exist in our didactic situations that may affect the way in which we can engage in constructivist teaching?

The difference between lecturing and teaching

« 3 » Martin Simon's (1995: 122) definition of "lecturing" as "telling students what they should understand" is the exact opposite of the way Baron described how he taught his students. Being a university "lecturer" himself, Simon (1995) argued that teaching with a constructivist perspective cannot occur through "lecturing." Constructivist teaching is much less straightforward and much more complex and uncertain. Baron's teaching approach cannot be described as "lecturing" in the sense of Simon (1995). He does not believe that students could or should be told what to understand. Quite the contrary, the author believes that different learners construct different meanings, irrespective of what interpretations the teacher assumes they are constructing (§11). Consequently, he feels that establishing a rapport with the students that helps to elicit their goals and interests is crucial for the constructivist teacher.

« 4 » Nevertheless, there may be university lecturers who feel the sheer number of students present in a lecture room will drastically reduce their chances of establishing a one-to-one rapport with their students, like Baron and I propose, in order to form experiential models of students' cognitive

structures (Glasersfeld & Steffe 1991; Ulrich et al. 2014). In a recent seminar in which I discussed my views about constructivist teaching, some university lecturers brought up the issue of having a hundred or more students in a lecture room. How can lecturers avoid "lecturing" in such circumstances? Even if they can afford the time to let some students comment or discuss certain concepts, how can these lecturers be sure that they learned something about the mental constructions of the vast majority of students who remained silent throughout the lecture? It seems to me that a possible way out of this problem is for the constructivist lecturer to think of those few students who speak up as a "sample" of the much larger group in the lecture room, even though they are most probably not a representative subset. By encouraging some students to communicate their thoughts, the lecturer can, at least, form hypothetical models of possible thinking patterns of other similar students listening to the lecture. However, this is still a very different situation from a school classroom where the number of students is much smaller. **Therefore, how could the problem of conversation with a large number of students who may amass in university lecture rooms be tackled? (Q1)**

« 5 » Another difference between school and university is that the former is compulsory and the latter is not. The subject that a primary or secondary school student is studying may not be that student's "strong point," and this may lead to these students refraining from giving their feedback, fearing they might be scorned by their peers or their teacher. In contrast, a university course is the choice of the students pursuing that course, and the chances of finding students who are more at ease with the subject at hand may be higher. This may be a favourable feature in university lectures over school lessons when it comes to conversational teachback.

« 6 » The most important difference between Baron's didactic situation and that of most schoolteachers (including myself) is that he had control over the subject matter taught to the students. In §23, he proposes that teachers should create syllabi that are personally relevant to the learners and include topics that are derived from feedback obtained from the students. This is a luxury most schoolteachers like myself can only dream about. Our school syllabi and the whole curriculum program are usually imposed on us by governmental and university bodies that determine which subject content our students should learn and in how many hours they should be able to do so. Schoolteachers have the arduous task of matching diverse students' experiences with the topics they are required to teach. This is rarely a plain sailing matter, especially with fixed, rigid syllabi of subjects like mathematics. Moreover, teachers need to negotiate their own understanding of the syllabus content with students' interpretations and re-presentations of that content. This was one of the problems I sought to address by creating the M-N-L framework discussed in my target article of this issue, but one question remains: **How can a schoolteacher whose syllabus and curriculum are predetermined by higher authorities establish a heterarchy with the students by encouraging them to be cocreators of their learning program? (Q2)**

« 7 » Moreover, even if school syllabi can be determined by teachers in collaboration with their students, the realistic epistemologies in which some educational systems are set stipulate that there will still be concepts in the subject matter that are agreed upon by the academic community and are consequently "forced upon" the learning community. This is neatly captured in what Mark Windschitl (2002) calls a constructivist teacher's *pedagogical dilemma*: **How can teachers and lecturers honour their learners' attempts to think for themselves while trying to remain faithful to the accepted disciplinary notions of the subject they teach? (Q3)**

Some concluding remarks

« 8 » Educators need to be aware that teachback (Baron) and negotiation of knowledge (Borg et al.) rely heavily on students' willingness to take an active part in the lesson. Students' readiness to participate may depend on a number of characteristics of individual students that are not directly related to the subject matter per se, such as personality and experience.

« 9 » Personality plays an important part in determining students' chances of participating in the lesson. A shy student who finds it difficult to speak up in front of a whole class is bound to remain silent even if she has much to offer to the classroom discourse. This reluctance to speak may be more pronounced when students find themselves in the midst (or periphery) of a very large number of students, which is the case in some university lectures.

« 10 » Students' experiential re-presentations of the world accumulate and develop as the student progresses through age and learning opportunities. A college or graduate student is bound to have more numerous and more developed mental constructs at her disposal than a middle- or elementary-school student, placing the latter at a disadvantage when compared to the former when it comes to articulating notions about their experiential worlds. Moreover, a teacher may find more common experiences with older, more experienced students than with younger ones. This may mean that the young students' teacher may find it harder to create a context whereby the students can identify with him or her (§27).

« 11 » Such characteristics may be important considerations in the discussion about contextual differences between university lectures and school lessons that may affect the chances of teachers learning from their students, building models of their students' thought processes, and establishing consensual domains with their students. Acknowledging these differences may help teachers and lecturers alike to better understand their didactic situation with respect to the possibilities of finding ways in which they could establish connections with their students for the benefit of learning.

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