what follows applies to most, if not all, other disciplines as well) such as mathematics, statistics, technical drawing, and even writing, are often positioned within programs such that they are presented as stand-alone, disparate skills, rather than as integral to the ways in which engineers make meaning. Mathematics is not an isolated skill: it is a meaning-making practice through which engineers (and scientists, and accountants, and others) construct knowledge about the world. Multimodal approaches to higher-education pedagogy allow for the theorization of how practices such as mathematics contribute to meaning-making within the context of disciplinary knowledge production. In the case of mathematics, some work in this regard has been done by Kay O’Halloran (2009), and with regard to technical drawing, I have undertaken some research into the meaning-making role played by drawings in engineering study (Simpson 2014).

> In conclusion, Baron’s six reflection points presented in §40 speak to being open to alternative narratives and the variety that students may bring to the conversational space. But, if one accepts that knowledge is constructed through multiple forms, as implied in the notion of multimodality, a brief introduction to which has been provided in this commentary, it may be necessary to introduce new metaphors for inclusivity. Words such as narrative and conversation remain mired in conceptions of language as a dominant form of meaning-making. Perhaps the project upon which Baron has embarked is not just about classroom conversations but about re-presenting the classroom as a dynamic, inclusive, multimodal space, in which layout, text, image, number, and conversation all come to mean within that space. In so doing, one can change “one’s mind-set from information processing to meaning generating” (§41).

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Constraints on the Use of a Conversational Strategy to Restructure the Classroom

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> Upshot · The introduction of conversational methods into the traditional classroom is a laudable undertaking. The ability of these methods to transform education is constrained by the educational management systems that determine many aspects of educational conversations.

The scope of Baron’s conversational strategy

> The conversations that Baron uses to learn by heart a great number of verses, […] Nor do they regard it lawful to commit these to writing, though in almost all other matters, in their public and private transactions, they use Greek characters.** (Caesar 2006)

** said there to learn by heart a great number of verses, […] Nor do they regard it lawful to commit these to writing, though in almost all other matters, in their public and private transactions, they use Greek characters.** (Caesar 2006)

> Similarly, Plato taught through a conversational method, described in the Meno (Plato 2008a), and reported Socrates’s argument that the use of writing in education will “give your disciples not truth, but only the semblance of truth” (Plato 2008b). My point is not to argue for the excellence of education in the past. The conversations were, no doubt, often impoverished, for example in the medieval role of the “reader,” whose task was to read books to students, to which the professor would add commentaries. Nevertheless, disputation remained a key educational process in the Middle Ages and beyond.

> A significant change occurs in the eighteenth century with the arguments for governmental management of higher education made by Johann Heinrich Gottlob von Justi and others (Clark 2006: 13). Since then a vast superstructure of instruments and processes for controlling and documenting educational processes has inextricably expanded, encrusting conversational interactions, often to the point of invisibility. In this the field of education partakes of a wider trend of bureaucratization, as described by Graeber (2015).

> It is these instruments and processes that constitute the context that determines the responsibilities of the actors in the classroom and which Baron’s article seeks to reformulate. I place Baron’s work in this wider context for two reasons. First, to stress the need for his work as an example of practice that implicitly critiques the dominant paradigm in which educational conversations are tightly constrained by the instruments and practices of educational management. Second, to make clear the historical momentum of the forces that have to be confronted if a reformulation of the responsibilities of the actors in education is to be achieved. The question that then arises is: To what extent, and in what ways, is the revision of roles in the classroom constrained by the instruments and practices of educational management? (Q1)

> The conversations that Baron uses as the vehicle for reformulating responsibilities in the classroom are constrained by the structures and processes of the institution within which those conversations take place. In his article, these constraints seem to limit the interventions to the learning activities that are carried out in order to deliver an existing curriculum. This is a pedagogy restricted to the interstitial spaces that still remain in the education system, where the managerial specification of educational processes has not yet penetrated. In these spaces, primarily the lecture theatre or classroom, a conversational approach that responds to the experience of the students can be established by a lecturer who has sufficient commitment and courage to move beyond established modes of teaching. Baron’s article indicates
that this initiative is of great value to the students. It would be interesting to explore the consequences of a teacher expressing a need for feedback from the learners in order to plan a lesson and thereby shifting from the role of sole arbiter of classroom activities. Does this cause a temporary change in the balance of authority in the classroom, and are there any longer-term consequences of such a change? (Q2)

« 7 » In §32, Baron asks this important question: “If educators expect their learners to move through the system like cattle, how can they also expect these same learners to reach the goals of higher-order thinking [...]?” However, there are many aspects of the actors’ responsibilities that remain untouched in Baron’s initiative, including the content of the curriculum (understood as the institutionally required content of the course) and the evaluation methods employed. To many educators it will seem self-evident that this must be the case, in order to maintain academic authority and control over qualifications. If I may extend Baron’s “cattle” metaphor, even in the conversational approach proposed in his article, the students are not at liberty to range where they will in the world of knowledge, or to graze on whatever topic takes their fancy. Because of this, I suggest that the authority of the teacher remains largely in place (for good or ill), and that this will inevitably prevent a radical reformulation of the responsibilities of the actors in the classroom.

The vexed question of authentic learning

« 8 » Baron makes a cogent argument for the pedagogic approach he has adopted:

**Teachers need to move away from linear thinking – thinking that they are in control of their learners. With the cooperation of the learners in a given context, the teacher may feel that they are ‘in control’ [...]** ($21)

I agree with Baron that this is an illusion, to the extent that I do not believe that the cognitive engineering of students’ brains can be achieved through educational processes. But there is also a sense in which the control exercised by teachers is not illusory. Baron (§37) refers to “lack of authenticity” in the education system, and describes learners who sit in class and engage in pseudolistening. One may reasonably ask, however, what it is that such students and their teachers think is happening in the classroom. I suspect that they do not treat the class as a kind of absurd drama but rather as a ritual that will lead them to attain certain benefits. For example, the teacher gains a salary and social status, while the students may hope to gain credits toward qualifications that will improve their employment prospects. In this context the teacher does indeed have control. In §21, Baron asks: “How do you know learning is taking place [...]?” The salutary reflection may be that few people want to answer the question in any depth for fear of upsetting the apple cart of educational benefits experienced in areas other than the personal development of the students.

« 9 » Baron offers six questions he asks himself ($40) in order to check the authenticity of his teaching activity. He goes on to say that “If my answer is ‘no’ to any one of these questions, it is time for me to take a break or change profession.” In these questions Baron sets out a principled view with which I have much sympathy. I doubt, however, that the teaching profession as a whole would be willing to place such store by his questions, or to understand Baron’s statement (§17) “I cannot teach you.” One will look in vain on a list of teachers’ key performance indicators for items from Baron’s list of questions, such as a personal interest in learners, a willingness to challenge one’s own worldviews, and so on. This discrepancy is a manifestation of the slippage between the widely held aspirations of educators as exemplified by Baron’s questions and the practice of educational processes. This slippage is driven by a range of factors, including career advancement, ideology, finance, and managerialism. It is also this slippage that enables institutions to ignore the force of the arguments in favour of the conversational approach that Baron sets out.

« 10 » The slippage reaches deep into our discourse about education. I am struck by Baron’s comment:

**The teacher imparts her knowledge in the classroom, but as Heinz von Foerster reminds us meaning is not transmitted in the conversation; rather, meaning is what the listener determines from what she hears.** ($8)

The phrase “imparts her knowledge” suggests a view of education as transmission of content, which fits awkwardly with von Foerster’s ideas of personal construction. I observe this tension rather than critique the formulation, as I suspect it is an accurate reflection of Baron’s teaching environment.

Decolonisation of the curriculum

« 11 » There is an abundant literature providing a pedagogic logic for approaches to education that stress the centrality of the learner’s view of the world, including, for example, Paulo Freire (1970), Ivan Illich (1971), and Ramón Flecha (1997). However, the practice of education seems to be heading in the opposite direction, with an emphasis on evidence-based pedagogy, which cumulates research over huge populations of students to identify effective practice. John Hattie (2011), for example, offers a synthesis of more than 800 meta-studies covering more than 80 million students. This approach is at odds with seeking the solution to pedagogic problems by engaging with the particular circumstances of specific groups of learners, as Baron proposes.

« 12 » In the case described by Baron, the discourse with students is complicated by the history of colonialism and “decolonisation of knowledge” ($15). Baron cites Gordon Pask’s statement that “the main point of conversation is the converse of control. It leads to deregulation” ($21), and I would point also to Pask’s assertion in the same paper that “education, in contrast to schooling, is only possible insofar as the teacher learns as much, or more, about the learner than the learner is supposed to learn from the teacher” (ibid: 19). This uncompromising statement from Pask leads one to ask: Can the decolonisation of knowledge through conversation be achieved without a decolonisation of control of the curriculum? (Q3)

« 13 » The education system in South Africa and in the rest of the world rests on the bedrock of institutions that are ascribed the power to determine what should be learned in order to achieve a particular status. These institutions are administered by a priesthood of academics (metaphorically, or in some cases literally) working in a tradition established and exemplified by
Changes in Institutionalised Education

Philip Baron

Author’s Response
Changes in Institutionalised Education: Is It Time to Rebel and Yell?

Philip Baron

» Upshot • Time constraints, locked curricula, strict management, and possible anarchy in the classroom are some of the themes that originated from the commentaries. I argue that these challenges should be viewed holistically in the broader picture. I also question the educator’s role in mitigating these obstacles. My advice: Do it anyway.

» 1 » I am excited to see many questions arising from the commentaries. Reading the individual commentaries has resulted in my own reflection of my work yet again – now with increased variety. I will attempt to address the commentators’ concerns and questions. I too asked myself a question: Has the conversational publication approach offered by Constructivist Foundations allowed me to achieve more insight into this topic? Does this extra loop, which also means extra time, improve knowledge acquisition and understanding?

» 2 » The first benefit that a conversational format provides is that I have a means for measuring what I put out to the world, where the feedback provides me with some indication as to my own accuracy in how I see myself in the eyes of others. This is a type of measurement, which was one concern that was posed by Gerard de Zeeuw in his Q1, where he asked what I am measuring against and what I am hoping to gain. To answer de Zeeuw’s question, I am testing against my own conception of how I am being viewed by others, and whether my impact is being acknowledged in the way I intended. I would like to gain information about other people in this measurement, which Panos Lazanas (§9) believes is the most satisfying experience, although Lazanas refers to a deeper level of knowing in his focus on the subconscious aspects of teaching and learning. I find the conversation the fastest and most useful method. I agree that tests and exams are a form of feedback, but such delayed feedback is primarily important to the institution rather than the educator. I may not have made it clear in my target article that my goal for teaching and learning is for students to experience their teacher as someone who adds value to their life and not simply someone who helps them get good marks. Early feedback is probably the most important aspect here. What is the point of continuing on a trajectory where the people who are supposed to participate have fallen by the wayside? I have observed educators determine that their students did not understand parts of the work only after the assessments were marked – a major waste of time. I note this point as Jack Lochhead in his Q1 asks where I get the time to perform conversational teaching, which is a common question I have been asked; however, I have not experienced a time constraint problem. By correcting for errors early in the class, I ensure these errors do not translate into errors in assessment. Rather the opposite is the case, which means the pass rates are higher, which in turn means less additional assessments, marking, and so forth. Thus, in quantifying time, one should evaluate the