Philosophy of Education

A plea for randomness

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Much educational thinking is goal-directed. This is as it should be, and in keeping with education's traditional self-understanding as a practical, intentional discipline: to bring about changes that are considered desirable (and perhaps necessary). Such changes are given in the curriculum and commonly called learning, development, knowledge acquisition or Bildung and can take place on both individual and institutional levels.

To this end, educators have at their disposal theories, methods, techniques, experiences, rules of thumb and a host of tacit assumptions about how things hang together and work. Typically, goal-directed educational theories involve a more or less clearly defined goal, and an account of how to achieve it. The basic idea of any goal-directed theory is that the "entity" in question (an individual student, a class, an organization, etc) changes toward the goal partly as a function of its interaction with an environment. The tendency toward a goal presupposes interaction with a *stable* environment; if the environment is unstable the goal may never be achieved. Consequently one may seek to influence the environment, e.g. by stabilizing and structuring it. This is precisely what goal-directed educational theories do; they tell us how we should arrange the environment in order to ensure an interaction that will further the tendency toward the goal; that is, maximize the probability of attaining the goal. Already in 1929 Erich Weniger described the job of what he calls an educational theory "of the third degree" as follows: "Bewuβter und systematischer will die Theorie die Praxis machen, Rationalität and klare Einsicht vermitteln, *die Zufälligkeit des Handelns ausschalten*" (1990, p.42, emphasis added). Weniger seems to be one of very few educationalists who use the term randomness (Zufälligkeit) at all, but we think his views are eminently generalizable. Randomness is seen as a problem, as an obstacle, as "noise" in the system, as an interfering factor, as something that stands in the way of planning and achieving results. Maximizing the probability of goal attainment goes hand in hand with minimizing randomness. We shall make it our business in this paper not only to question the problematic role attributed to randomness, but also to argue that randomness in fact can be seen as a good thing – even, perhaps, as necessary.

In this endeavor we seem to be going against the current; albeit not alone. In recent years, the onslaught on randomness has taken on unprecedented proportions. Worldwide the

educational landscape of today is dominated by a vocabulary consisting of such concepts and ideas as learning outcomes, evaluation, testing, measurement, qualification, evidence-based practice (and policy), employability, accountability, effectiveness, competencies, quality assurance and predictability; here given in no particular order. Thus we have a situation where learning outcomes are predetermined and stated as precisely as possible, not infrequently in terms of competencies and skills. Since schooling and education are considered successful when those outcomes have been achieved, outcomes-based education makes excessive requirements of assessment, measurement, mapping and documentation. There is no room for randomness and interfering factors and "noise" in such processes. If the quality and the value of the educational activities come down to achievement of pre-defined outcomes, two things might ensue. First, unpredicted outcomes will not be appreciated. Second, one can imagine that the range of admissible individual-environment interactions to further such outcomes must be narrow and highly specific; thus the environment needs to be tightly structured.

So why is this a problem? Who could be opposed to clearly defined goals and maximally effective, carefully evidenced ways of achieving them? Claudia Ruitenberg (2009) provides a short but highly lucid account of different critiques of outcomes-based education. A *pragmatic*, based on John Dewey's conception of educative experiences (to be developed in the full paper); a *political*, coupling measurable outcomes to economic utility and productivity; and a *conceptual*, based on Richard Peters' views of the concept of education, arguing that outcomes-based education is misguided because it narrows education to training and instruction and fails to do justice to broader cognitive processes such as e.g. rational reflection and appreciation of art. To these critiques Ruitenberg adds an *ethical* critique, using Derrida's ethics of hospitality to argue that outcomes-based education fails to give place to unforeseeable learning and therefore is fundamentally inhospitable. It does not give place to students, she argues, but rather predetermines what learning should take place in educational spaces.

While we at least partly share Ruitenberg's concerns about unforeseeable learning, our perspective differs from hers in two ways. She restricts her analysis to outcomes-based education; we wish to be more general and principally address all education. Her concern is ethical, ours is more, shall we say, metaphysical. We wish to explore randomness as an integral part of the make-up of the world. As a prelude we again turn to Weniger. Weniger is a subtle and nuanced thinker. While he acknowledges that the job of a (goal-directed)

educational theory among other things is to contribute to the organization of practice and infuse it with predictability, he also says the following: "Als letztes bleibt schlieβlich die Forderung nach Offenheit der Theorie gegenüber der konkreten Situation, es darf keine Tyrannis der "praktischen Erfahrung" gegenüber dem *jeweils Neuen* der erzieherischen Aufgabe geben" (1990, p.40, emphasis added). This citation reveals something important that we will elaborate much on in the full paper. If our lives were wholly predictable, it would be sufficient to use one's existing knowledge and old experiences as guides to future events and actions. Anything new that happened would appear to be old and known; in fact it could simply be subsumed under already existing categories. All our theories in some significant sense have the past as their major frame of reference. If randomness did not exist, we could learn all we ever needed to know by repetition, imitation and memorization. We could tailor interactions with an environment that would unfailingly bring about the results we desire. But as Weniger suggests, while our knowledge may be a necessary condition for action, it is not also a sufficient one. There is always something *new*, something unpredictable, something that is randomly present. The world is contingent. This means that we may find ourselves up against things we do not know and are not prepared to handle, and it means that our actions may have consequences we did not and could not predict. In Antiquity they used the word *tyche* (τύχη) to denote the unexpected, the random, the unpredictable, luck or unluck. In educational settings, we argue, we do our best to eradicate *tyche* to allow for maximum predictability.

At this junction a couple of questions arise. Is it possible to eradicate all randomness? We take the uncontroversial answer to be no, it is not. Is it desirable? Again our answer is no, with some qualifications. And since this might be more controversial, a substantial part of our paper will go into developing a line of argument to justify our answer. Here we wish to invoke the work of Gregory Bateson (1980). He describes learning as a stochastic process. This phrase is ambiguous and allows at least two interpretations. The first is that the same process yields different outcomes. This does not really interfere with planning, since the outcomes may not be random but rather statistically distributed over a given range. It means, however, that one cannot predict the outcome for individual students. The second interpretation is to see the learner is a stochastic "entity". In this case the result will be genuinely unpredictable and indeterminate and no plans can be made.

Bateson's views on learning are complex and belong to a wider system of evolutionary theory. Great care is therefore needed in adapting his views to educational

thinking. But what he says that is of highest importance to us here is that no organism can produce anything *new* unless it contains some source of the random. Randomness thus becomes a necessary but double-edged sword: it can lead to disorder or it can lead to innovation. The link to educational theory comes about because the random component is provided by the individual in interaction with his/her environment. And here is an interesting meeting point of such diverse thinkers as Bateson and Weniger: can we plan for the *new*? Weniger cautions us against rigid thinking, fixating the new in old categories. Bateson says we can achieve the new only by embarking on pathways that are *randomly present*; something that cannot be predetermined but is an opportunity to be seized in the moment.

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