

Education for an unsettled world: Dewey's conception of open-mindedness

William Hare
Mount St. Vincent University

There is no belief so settled as not to be exposed to further inquiry
-- John Dewey (1938a/1986: 16)¹

Knowledge as subject to revision

At the dawn of the twentieth century, a view of education emerged that fundamentally altered traditional conceptions of teaching and learning, setting out an ideal that continues to influence and inspire teachers today. It was a far cry from assumptions about children, knowledge and learning embedded in the classroom practices of that era and which are more common in our own day than we might care to admit. The student, hitherto a passive recipient of information provided by the teacher, discouraged from thinking about what the ideas might mean, seeing that they might be questioned, or appreciating that there was more to learn than was presented in school, was now to be viewed as an active learner engaged in a continuing reconstruction of experience.

That provocative characterization of education was proposed by John Dewey (1897a/1972: 91), and Dewey did more than anyone else to develop a philosophically compelling account of education that transformed learning into the development of intelligent reflection on experience, and teaching into the selection and organization of experiences that would contribute to the ongoing growth of the student. In thinking of education as primarily fostering the ability to go on learning intelligently and independently, Dewey was building on ideas that had been very much in the air in the second half of the nineteenth century. Mill, for example, had suggested that teachers be chosen for their ability to stimulate students to find the truth for themselves (1852); Huxley had proposed a conception of liberal education as enabling people to continue being receptive to the lessons to be learned about the nature of the world around them (1868); and Peirce had argued for the importance of scientific inquiry and had warned against stubbornly clinging to one's

beliefs (1877). But it was Dewey who took the idea of teaching and learning in an inquiring spirit and wove it into a comprehensive theory of education, one that addressed the changing circumstances of the world at the end of the century.

That world, as Dewey saw it, was strikingly characterized by fundamental change of every kind with far-reaching consequences for education:

New inventions, new machines, new methods of transportation and intercourse are making over the whole scene of action year by year. It is an absolute impossibility to educate the child for any fixed station in life (Dewey, 1897b/1972: 59).

One can hardly believe there has been a revolution in all history so rapid, so extensive, so complete....Even our moral and religious ideas and interests, the most conservative because the deepest-lying things in our nature, are profoundly affected. That this revolution should not affect education in some other than a formal and superficial fashion is inconceivable (Dewey, 1899/1976: 6-7).

Developments in science, technology, and industry were rapidly introducing enormous social and political changes, setting in motion events with unpredictable consequences for moral and intellectual life. Dewey's view was that "since changes are going on anyway, the great thing is to learn enough about them so that we may be able to lay hold of them and turn them in the direction of our desires" (Dewey, 1920/1982: 146).

The instability associated with such change, moreover, is mirrored in a growing sense of tentativeness with respect to knowledge itself. In Dewey's epistemology, ideas are always provisional and the "facts" only apparently facts. The process of breaking up and reconstructing knowledge is seen as continuing in an endless cycle since, as Dewey remarks, the universe lays itself open somewhere to suspicion (Dewey, 1890a/1969: 89). He makes a similar point half a century later (1938a/1986: 16), when he remarks that knowledge is the product of competent inquiries, but inquiry is always a continuing process. Dewey believes that we need to recognize that all truths and theories are *working hypotheses*

if we are to counter “the *dogmatic* habit of mind, the belief that some principles and ideas have such a final value and authority that they are accepted without question and without revision” (Dewey, 1908-9/1977: 188).

These reflections on change and uncertainty begin to reveal the implications for education of Dewey’s observation that “we live not in a settled and finished world, but in one which is going on, and where our main task is prospective” (Dewey, 1916/1980: 158). Given this general outlook, Dewey proposes that the fostering of reflective thinking is absolutely central in education. Thinking is, for Dewey, the method of intelligent learning (1916/1980: 159), and its value and relevance is paramount in a world where we confront uncertainty, confusion, perplexity, and doubt. Information that is viewed as fixed and static, and habits that impose rigid boundaries -- both so often the outcomes of traditional schooling -- stand in the way of attempts to address, or even recognize, problematic situations, and hinder rather than support efforts to think out solutions, alternatives, and possibilities. We cannot respond intelligently to an unsettled world using settled ideas and settled routines. Thinking, says Dewey, is “occasioned by an *unsettlement* and it aims at overcoming a disturbance” (1916/1980: 336). It draws on all the skills and methods of inquiry, observation, reflection, and imagination that we can muster.

It is a familiar point, however, that the possession of skills often fails to influence the way people regularly behave. Knowledge of the methods of inquiry, says Dewey, is not sufficient; an individual needs to be “personally animated by certain dominant attitudes” (1933/1986: 135). Some attitudes, such as wanting to be in harmony with others, will be problematic if they merely lead people to accept the prejudices of other people. The attitudes Dewey has in mind, however, include a number of intellectual and moral virtues, such as a personal sense of responsibility and integrity, and whole-hearted interest in some question; and a number of qualities, such as a willingness to suspend belief and to go where the evidence points, that are viewed as falling under an ideal form of the scientific attitude

(1939/1988: 166). Such attitudes suggest a genuine commitment to inquiry and reflection that will help to ensure that skills of inquiry are actually put into practice.

It is natural, then, to wonder if there is an attitude that is especially valuable in a world where old certainties are being brought into question by new problems, and where the idea of certainty itself is giving way to the notion of warranted assertibility (Dewey, 1938a/1986: 16). Dewey draws attention to Peirce's remark that we should construct our theories to allow room "for the modifications that cannot be foreseen but which are pretty sure to prove needful" (1938a/1986: 17. fn. 1). If it is true that there is no guarantee that a seemingly settled conclusion will remain settled, what attitude should we have towards what we take to be knowledge? If the future will be different in ways that we cannot predict, what attitude will serve us well?

Dewey's conception of open-mindedness

It should come as no surprise, given the general outlook sketched above, that the attitude of open-mindedness plays a significant role in Dewey's philosophy of education. If we are to move forward and continue learning from experience, open-mindedness is surely an indispensable attitude, involving as it does a willingness to revise or even discard beliefs which we may once have held with great confidence, as well as a willingness to entertain novel ideas that might initially seem strange and counter-intuitive. Education, Dewey believes, must aim at preventing opinions being held and asserted dogmatically (1912/1979: 292), and open-mindedness is the crucial virtue here. If we cannot accept that our present views may need to be modified, or if we cannot recognize that new ideas need to be taken seriously, we will be forever prevented from intellectual growth which requires "constant expansion of horizons and consequent formation of new purposes and new responses" (Dewey, 1916/1980: 182).

Dewey explicitly acknowledges the significance of open-mindedness very early on in his writings when he discusses what one should expect from a college education.

Students who arrive at university with narrow views and limited horizons need to be encouraged to try out new ideas. Dewey suggests that one aim of education at this level is the development of “a quality of mind at once flexible and concentrated in dealing with new material, a certain attitude of mind, a mental openness and eagerness” (1890b/1969: 51). He does not elaborate on these ideas in this context, but we can make progress in understanding more precisely what Dewey means by open-mindedness, and why he thinks it so important, if we consider the three key elements of this attitude which emerge in his subsequent work:

- (1) Open-mindedness involves retention of the childlike attitude
- (2) Open-mindedness involves a preference for properly grounded conclusions
- (3) Open-mindedness involves a willingness to revise one’s beliefs

Each of these criteria warrants further discussion.

(1) By the childlike attitude, of course, Dewey is not thinking of the credulity that so often characterizes the young child. Too ready acceptance of ideas suggested by adults, what Dewey calls the child’s plasticity, unfortunately means very often that “education becomes the art of taking advantage of the helplessness of the young” (1922/1983: 47). Conclusions are formed in the child’s mind just because the suggestions are vivid and powerful, and adults may seize the opportunity to indoctrinate the young, or fail to develop in the child the skills of reflective thinking. Such credulity, which amounts to uncritical thinking, has the tendency to shut down the very qualities Dewey has in mind when he speaks admiringly of the “open-minded and flexible wonder of childhood” (1910a/1978: 207), namely boundless curiosity, constant exploration, eagerness for new experiences, and a keen interest in problems. For Dewey, the attitude of childhood is “naive, wondering, experimental” (1933/1986: 278).

Openness to ideas has often been lost by the time students leave school and has been replaced by “hedges of custom” (1922/1983: 47). Dewey believes that curiosity is natural in young children, however, and “instinctive eagerness and the natural environment are so well adjusted” (1908-9/1977: 186) that open-mindedness for a time essentially takes

care of itself. The fact that children are not as burdened as adults with settled duties and relatively fixed goals is also relevant here (1913/1979: 370); it means, as Dewey puts it here, that there is greater susceptibility to new ideas in children, and that there is greater scope for them to engage in the free and flexible play of ideas. Such mental play is open-mindedness, says Dewey (1910a/1978: 351), but he warns against interpreting this as implying a lack of seriousness. Mental play means that an idea can be followed on its own account without being constrained by a preconceived belief. Open-mindedness as retention of the childlike attitude (1916/1980: 182) primarily emphasizes a willingness to entertain new ideas and ways of thinking as one's outlook is broadened.

Dewey sometimes adds the suggestion that open-mindedness involves "an active disposition to welcome points of view hitherto alien" (ibid.). This probably overstates the case if such a welcoming attitude is being proposed as a necessary or general condition of open-mindedness. A study, for example, that undermines a theory an individual has developed over many years might not be actively welcomed by that person, but his or her open-mindedness would still seem assured if they were in fact willing to accept the research findings albeit reluctantly (Hare and McLaughlin, 1998: 286). Perhaps we can interpret Dewey as making the point, in somewhat exaggerated terms, that the open-minded person will ultimately prefer the view that enjoys the strongest support.

(2) A willingness to entertain new ideas is not to be understood as uncritically accepting whatever comes along, hence Dewey's emphasis on the second criterion mentioned above, namely the need for properly grounded conclusions:

[But] the open mind is a nuisance if it is merely passively open to allow anything to find its way into a vacuous mind behind the opening. It is significant only as it is the mark of an actively searching mind, one on the alert for further knowledge and understanding (Dewey, 1934a/1986: 180-81).

Similarly, Dewey warns that:

the mind that is open merely in the sense that it passively permits things to trickle in and through will not be able to resist the factors that make for mental closure (Dewey, 1933/1986: 137)

There is, Dewey concedes, an appropriate place for a certain kind of passivity in the process of open-minded reflection in so far as ideas are given time to sink in and ripen. An analogy might be found in Dewey's comments on the phenomenon of "sleeping on a problem" where he speaks of a process of incubation (1933/1986: 345). In allowing experiences to accumulate by way of sinking in, however, the stage of critical scrutiny is simply postponed. In the contemporary language of "connected knowing", we might interpret Dewey's suggestion about giving an idea time to sink in as a matter of seriously connecting with an idea before accepting or rejecting it. We need, in short, to suspend judgment (1910a/1978: 191) and not give way to an "impatience to get things settled" (1933/1986: 123). Dewey's concept of open-mindedness is a critical one through and through, however, and it involves an active mind ultimately trying to assess the merits of whatever idea is in question.

Open-mindedness contrasted with empty-mindedness is a memorable part of Dewey's analysis, and he shows how easy and tempting it is to slip away from the critical assessment of ideas in the direction of an "anything goes" attitude. In a comment which has as much relevance today as it did nearly a century ago, Dewey clearly identifies one slippery slope in particular:

So many things have been vouched for by science; so many things that one would have thought absurd have been substantiated, why not one more, and why not *this* one more? (1910b/1978: 77).

Dewey's example is the kind of thinking that holds that if radioactivity is a fact, why not telepathy? In our own day, the same line of reasoning maintains that since science has confirmed many strange and bewildering theories, we should be open-minded about alien abduction (Pope, 2000). In such cases, the appeal to open-mindedness is essentially designed to make people hesitate to resist a particular claim. As Dewey sees it, "the natural

common sense of mankind has been interfered with to its detriment” (1910b/1978: 77), and he states plainly that education should seek to develop an “open-minded preference for conclusions that are properly grounded” (1910a/1978: 202). If we are to be genuinely thoughtful, we should take care “not to accept an idea or make positive assertion of a belief until justifying reasons have been found” (1933/1986: 124). Originality, Dewey notes, may only amount to “cranky eccentricity” (1922/1983: 47) devoid of any idea that deserves to be taken seriously.

(3) These two dispositions, a childlike openness to new ideas, and a preference for properly grounded conclusions, will inevitably bring some of the views we now hold into question, and this brings to the foreground the third aspect of open-mindedness Dewey emphasizes. If new ideas conflict with existing ones, as they almost certainly will at some point, a preference for properly grounded conclusions will mean that some of one’s present beliefs will come in for critical assessment and, where necessary, may have to be revised or even rejected. Otherwise, what would it mean to be genuinely open to new ideas? To entertain new ideas is to entertain the possibility that they may be true. If there are compelling reasons to think they are indeed true, and if they conflict with beliefs we now hold, then open-mindedness requires that we be willing to revise those of our beliefs now shown to be mistaken. Dewey reminds us also that genuine open-mindedness is a no-holds barred affair. It requires us “to recognize the possibility of error even in beliefs that are dearest to us” (1933/1986: 136), including, as we saw in an earlier remark, our moral and religious beliefs. Genuine open-mindedness, for Dewey, goes beyond that narrow form which only involves being open-minded about the best means to achieve certain ends; in this narrow form, the ends themselves, having been settled on as unalterable, are not subject to open-minded reflection (1916/1980: 182).

Dewey does not, of course, make the mistake of holding that a person must actually revise his or her present opinion on pain of being labeled closed-minded. In his discussion of the aims of a college education, Dewey urges the student “to lay aside the suit, the habit,

of mental clothes woven and cut for him in his native village, and to don the foreign costumes” (1890b/1969: 52). Here Dewey is thinking of people giving new ideas active consideration with the possibility of their own outlook being influenced. But he adds: “If he be called to wear again his old suit, he will wear it more easily and naturally for knowing something of the fashion of other men’s garments” (ibid.). We may be willing to give serious consideration to a new idea, but in the end remain unconvinced. It may not, after all, prove to be “properly grounded” and our present view will not change.

Nevertheless, if we are genuinely willing to revise our views, there must be a real possibility that such revision will actually occur when called for, and Dewey shows very clearly that this constitutes a serious challenge. Open-mindedness, like other virtues, is a demanding virtue because many factors conspire to defeat our efforts at open-minded inquiry. Dewey mentions such problems as the path of least resistance, self-conceit, and prejudice (1933/1986: 136). We need to be aware of our fallibility if we are to avoid the kind of arrogance that leads to closure; but we also need to retain a sense of optimism about inquiry if we are to avoid the kind of apathy that destroys eagerness. Dewey captures the necessary balance between caution and confidence in a remark that also suggests how practising open-mindedness can begin to address the pitfalls that undermine the attitude:

[But] a mind that has opened itself to experience and that has ripened through its discipline knows its own littleness and impotencies; it knows its wishes and acknowledgments are not final measures of the universe whether in knowledge or in conduct, and hence are, in the end, transient. But it also knows that its juvenile assumption of power and achievement is not a dream to be wholly forgotten (1925a/1981: 313).²

The three strands identified above form interlocking components of an overall conception of open-mindedness, complementing and supporting each other:

(i) being open to new ideas slips into a wishy-washy credulity unless the new ideas encountered are subject to critical scrutiny; and it takes on a superficial quality unless it is coupled with a willingness to change one's thinking;

(ii) being critical, divorced from a genuine openness and eagerness, might too quickly lead to an idea being dismissed before its merits have been truly appreciated; and unless tempered by a willingness to revise one's beliefs, a critical outlook might only prove to be a defence mechanism against rival views;

(iii) being willing to revise one's ideas is an idle boast if we are not actively open to new ideas that might actually challenge our beliefs; moreover, revising one's views degenerates into mindless change of opinion unless it is governed by critical assessment.

Existing in creative tension, however, these elements unite to constitute a powerful conception of open-mindedness that balances and tempers the strengths and weaknesses in each strand taken alone. It is this complex conception of open-mindedness that Dewey puts forward as an educational aim in direct conflict with prejudice, dogma, and "the conceit of learning [that] coats the mind with a varnish waterproof to new ideas" (1910a/1978: 319). If this attitude is an important part of the outlook of an educated person, what can teachers do to help foster open-mindedness in students? What would teaching look like if open-mindedness were taken seriously as an aim of education and an attribute of the good teacher? What are the implications for teacher education if open-mindedness is regarded as a central virtue?

Open-mindedness in teaching

David Perkins observes that science, philosophy and education have been more concerned with recommending how to improve thinking ability than with explaining why people so often do not think well; and he believes that more attention has been paid to skills and abilities than to intellectual dispositions and commitments (2002: xvii). Dewey, as we saw earlier, recognizes clearly the limitations of a skills-based approach, arguing for the

importance of certain intellectual attitudes; and he also explicitly raises the question why a great many more persons do not have the attitudes in question (1939/1988: 168).

An important part of the answer to that question, for Dewey, lies in the kind of experiences children have at school. The sweeping changes in educational practice he envisioned, alluded to at the outset of this discussion, were intended to help nurture and sustain that natural curiosity and spontaneous interest displayed by children. Traditional conceptions of teaching, Dewey believes, fail to do justice to the ideal of open-mindedness, and he invites teachers to rethink their aims and priorities, and the manner in which they teach, and to examine the ways in which schooling may inhibit the emergence of open-minded attitudes. Moreover, traditional attitudes towards schools and teachers, in Dewey's view, help to deter the best people from entering the profession, and he invites all who care about education to ask in an open-minded way what it is that makes teaching so unattractive to many. His main reflections with respect to the fostering of open-mindedness in education may perhaps be captured in the following ideas:

(i) Teachers must first recognize the fundamental place of attitudes in the outlook of the educated person, and not lose sight of these general aims despite the pressure to teach ever more specialized knowledge. We may, for example, become more and more successful at introducing a small number of talented students to sophisticated scientific theories, while failing to influence "the much larger number to adopt into the very make-up of their minds those attitudes of open-mindedness, intellectual integrity, observation and interest in testing their opinions and beliefs that are characteristic of the scientific attitude" (1934b/1986: 99). Dewey immediately adds that every course in every subject should make the promotion of such attitudes the central aim of teaching, but he is acutely aware how easy it is for the teachers to overlook the significance of attitudes when "by means of achievement and mental tests carried on from the central office, of a steadily issuing stream of dictated typewritten communications, of minute and explicit syllabi of instruction, the teacher is reduced to a living phonograph" (1925b/1984: 122). The great danger here is that, because

students can produce the appropriate word, such achievement tests may create the mere appearance of knowledge. Dewey reminds us that genuine ignorance, where we realize that we do not know, is more likely to be accompanied by open-mindedness (1933/1986: 307).

(ii) In view of such pressures in their work, teachers need to be constantly aware that the overall example they set in all of their interactions with students will have a powerful effect on the attitudes students form. Dewey emphasizes the point that “everything the teacher does, as well as the manner in which he does it, incites the child to respond in some way or other, and each response tends to set the child’s attitude in some way or other” (1910a/1978: 218). What Dewey calls “collateral learning” in the form of enduring attitudes is constantly occurring (1938b/1988: 29), and the teacher who displays little curiosity in questions that come up, or who discourages children when they ask questions, is displaying a closed-minded outlook that will tend to rub off on the students. “It is not too much to say”, Dewey comments, “that the most important thing for the teacher to consider, as regards his present relations to his pupils, is the attitudes and habits which his own modes of being, saying, and doing are fostering or discouraging in them” (1904/1977: 262.) Dewey took seriously the idea of the teacher as a learner (1916/1980: 167), and a teacher who is seen by students as continuing to learn is setting an example of open-minded inquiry. As are the teachers, Dewey remarks, so are the schools (1925b/1984: 123).

(iii) Teaching needs to be re-oriented towards encouraging students to do their own thinking in their own way, to identify problems for themselves, to construct possible solutions, to try out various ideas to see if they will work, to make choices tentatively, and in every way to engage in that “free play of mental attitude” which is so vital to the fostering of open-mindedness (1903/1977: 235-7). Experience will inevitably foster certain dispositions, “...if not habits of suspending judgment until inferences have been tested by the examination of evidence, then habits of credulity alternating with flippant incredulity, belief or unbelief being based, in either case, upon whim, emotion, or accidental circumstances” (1933/1986: 185-86). The challenge, then, is to ensure that the dispositions

that constitute intelligent thought are not postponed or thwarted, but exercised from the very beginning of the child's school experience (1933/1986: 186; 1934b/1986: 99-100). Dewey reminds us that "to experiment in the sense of trying things or to see what will happen is the most natural business of the child", and yet "acquiring takes the place of inquiring" as the fundamental intellectual attitudes are neglected (1903/1977: 236-8). If teaching were, by contrast, organized around independent learning activities that build on existing interests and the natural enthusiasm of students, this would not only loosen the grip of the idea that teachers have to "make" things interesting (1895/1972: 120), but might also "generate curiosity and openness of mind about many things not directly related to the immediate needs" of the activity in question (1908-9/19: 188).

(iv) For teaching to move in this direction, thereby giving students the opportunity to engage with problems, the obsession with obtaining the "correct answer" from the student must be given up: "No one other thing, probably, works so fatally against focussing the attention of teachers upon the training of mind as the domination of *their* minds by the idea that the chief thing is to get pupils to recite their lessons correctly" (1910a/1978: 222). Absurdly, a concern for the correct answer even enters into matters which are clearly controversial. Dewey gives an example of a pamphlet for high school students, dealing with a contemporary political issue, which presents one view as the correct view. He comments:

I think the fact is an illustration of the prevailing tendency to have everything settled, to have students arrive at correct views on every topic that comes up for fear lest their minds be left hanging in uncertainty.

Since, however, events themselves are hanging in the air, since the world itself is in a state of uncertainty as to what is impending, the point that is most important educationally was omitted. The tendency to develop closed minds was strengthened....Was it better to have the matter settled as far as the minds of boys and girls were concerned or better to arouse curiosity and an abiding interest in the question for the future (1934c/1986: 160-61).

(v) It is important to be clear, however, that Dewey acknowledges the importance of correct information (Hare, 1995: 48), and also the need for teachers at times to provide that information. As a general principle, information should no doubt be gained by the student in the recognition and solution of problems; an open-minded interest in the problem may be destroyed if students merely strive to satisfy the teacher by producing the expected answer. Teachers, however, must be flexible and adaptable in practice rather than locked into a simplistic and rule-governed approach to their role. They must “know how to give information when curiosity has created an appetite that seeks to be fed, and how to abstain from giving information when, because of a lack of a questioning attitude, it would be a burden and would dull the sharp edge of the inquiring spirit” (1933/1986: 144). In short, teachers need to adopt an open-minded attitude towards the interpretation and application of pedagogical principles and be prepared to use their own good judgment. They should determine whether or not to provide information to students not by appeal to an absolute rule but in terms of whether or not doing so would, in their view, tend to foster or discourage curiosity and open-mindedness.

(vi) Any hint of dogmatism must be avoided in teaching because this “surely creates the impression that everything important is already settled and nothing remains to be found out” (1933/1986: 144). When they are given the impression that knowledge about any subject is “exhaustive and final”, students turn into docile pupils (1933/1986: 324). Science in the school curriculum, for example, has not lived up to the promise implicit in the very idea of the scientific spirit, with its connotation of inquiry, curiosity, and questioning, because “science has been taught too much as an accumulation of ready-made material with which students are to be familiar, not enough as a method of thinking, an attitude of mind, after the pattern of which mental habits are to be transformed” (1910b/1978: 70). If teachers exemplified what Dewey calls an experimental approach, viewing ideas and principles in their subject as tentative, education might produce students who recognize the need to test and revise their beliefs (1908-9/1977: 188).

(vii) Open-mindedness has been undermined in the teaching of civics and social studies because there is a tendency to idealize social institutions, “glossing over....a sense of what the problems are that make it difficult to carry on our government successfully” (1923/1983: 160-61). The impression created is that questions of political and social life were essentially settled by the makers of the Constitution or are to be resolved by persons in authority. As a result, students leave school in “too innocent a frame of mind” (ibid.: 160). Dewey is careful to distinguish a merely fault-finding attitude from the kind of attitude that reflects an awareness that there are problems that will have to be confronted with intelligence and judgment. To open the minds of their students to such realities, teachers have to strive for a frank and impartial discussion of society in school, and Dewey recognizes that this may well call for teachers to display some intellectual courage.

(viii) Teachers should recognize that “every pupil must have a chance to show what he truly is....” (1915/1979: 297). Dewey’s point is that teachers must not be bound by preconceived ideas about what to expect from students in the classroom but must remain open-minded. He is careful to insist in various places that his point is not that all planning must be rejected but that planning for teaching must remain flexible and guided by the needs and interests of the particular students in question: “There is something fresh, something not capable of being fully anticipated by even the most experienced teacher, in the ways they [the students] go at the topic, and in the particular ways in which things strike them” (1916/1980: 313). And Dewey believes that “the teacher who does not permit and encourage diversity of operation in dealing with questions is imposing intellectual blinders upon pupils” (1916/1980: 182).

(ix) Furthermore, teachers should avoid a fixed and rigid view of what subject-matter is appropriate in particular cases. Teachers need “an imaginative vision which sees that no prescribed and ready-made scheme can possibly determine the exact subject-matter that will best promote the educative growth of every individual young person” (1934d/1986: 199).

Without such open-mindedness about the curriculum, teaching and learning drift towards the conventional and the mechanical (1916/1980: 313).

(x) If the practice of teaching and the attitude of teachers are to change in the ways suggested, the preparation of teachers must be approached differently so that teachers themselves become “so full of the spirit of inquiry, so sensitive to every sign of its presence or absence” that they are able to awaken the same spirit in their students (1904/1977: 265). Dewey distinguishes between (i) acquiring skills that give immediate proficiency, and (ii) helping to create a thoughtful teacher who can go on growing. This distinction suggests to Dewey a contrast between an apprenticeship and a laboratory approach to teacher education.³ Teachers who emerge from an apprenticeship program may be able to perfect skills already acquired but be unable to maintain an open-minded outlook that would prevent them becoming submerged in the day-to-day routine: “If teachers were possessed by the spirit of an abiding student of education, this spirit would find some way of breaking through the mesh and coil of circumstance and would find expression for itself” (1904/1977: 257).

(xi) Those whose task it is to help prepare teachers for the profession must not regard present educational standards as settled and fixed, nor view their role as one of bringing student teachers to accept and conform to present norms. Referring to teacher education programs, Dewey insists that “educational leadership is an indispensable part of their office” (1904/1977: 272). Leadership in teacher education involves being open-minded about ways in which education can be improved, but this does not simply mean producing teachers who are better at doing the tasks that presently constitute good practice. What is needed is a more fundamental openness about what constitutes education itself (1904/1977: 272).

(xii) Finally, if teachers are to embrace a new approach to their work in schools, there must be a radical change in attitude in general society towards the profession. First, adverse conditions such as very large classes that make it all but impossible for teachers to

encourage independence and creativity in their students must no longer be tolerated (1925/1984: 121). When, as Dewey remarks, “the teacher is compelled to instruct in batches and on a basis of uniformity” (ibid.), there can be little prospect for open-mindedness. Second, Dewey fears that a “colorless intellectual conformity” has become the norm, and “vigorous, many-sided and rich personalities” find the profession unattractive (ibid.: 122):

In the name of centralization of responsibility and efficiency, and even science, everything possible is done to make the teacher into a servile rubber stamp (ibid.: 122).

A recent news item reports that the woman named most outstanding new teacher of 2002 in the United Kingdom is thinking of leaving the profession citing, among other things, the increasing burden of “government initiatives”. Dewey’s point is that we only discourage those who might foster open discussion and intellectual inquiry from entering the profession when we make it clear that teachers are not expected to have any initiative of their own.

Concluding comment

An open-minded individual is willing to allow his or her beliefs to become unsettled in order to entertain new possibilities, to set preferred conclusions aside in order to follow the evidence, and to revise beliefs so as to reflect the evidential support. Open-mindedness, therefore, unsettles the world we live in by encouraging us to notice and abandon deceptive certainties, and to forego what Bertrand Russell calls “the cosy home-like comfort of a fenced-in dogmatic creed” (1952: 108). At the same time, however, open-mindedness helps us to cope with, and respond to, an unsettled world by suggesting to us new ways of addressing emerging issues and new insights into familiar problems, thus keeping us committed to reaching whatever settled ground we can. “To the open mind”, Dewey remarks, “nature and social experiences are full of varied and subtle challenges to look

further” (Dewey 1910a/1978: 207). Intellectual curiosity is easily lost if not carefully nurtured, however, and Dewey’s reminder that the teacher’s task is “to keep alive the sacred spark of wonder and to fan the flame that already glows” (ibid.) remains as important as ever.

References

- Dewey, John. (1890a/1969). The logic of verification. In J. A. Boydston (ed.), *John Dewey: The Early Works* (Vol. 3, pp. 83-89). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1890b/1969). A college course: What should I expect from it? In J. A. Boydston (ed.), *John Dewey: The Early Works* (Vol. 3, pp. 51-55). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1895/1972). *Interest in Relation to Training of the Will*. In J. A. Boydston (ed.), *John Dewey: The Early Works* (Vol. 5, pp. 111-50). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1897a/1972). *My Pedagogic Creed*. In J. A. Boydston (ed.), *John Dewey: The Early Works* (Vol. 5, pp. 84-95). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1897b/1972). Ethical principles underlying education. In J. A. Boydston (ed.), *John Dewey: The Early Works* (Vol. 5, pp. 54-83). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1899/1976). *The School and Society*. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 1, pp. 3-109). Carbondale: Southern Illinois University.
- Dewey, John. (1903/1977). Democracy in education. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 3, pp. 229-39). Carbondale, IL: Southern Illinois University Press.

- Dewey, John. (1904/1977). The relation of theory to practice in education. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 3, pp. 249-72). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1908-9/1977). The bearings of pragmatism upon education. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 4, pp. 178-91). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1910a/1978). *How We Think*. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 6, pp. 179-356). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1910b/1978). Science as subject-matter and as method. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 6, pp. 69-79). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1912/1979). Contributions to *Cyclopedia of Education*. Entry on "Opinion". In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 7). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1913/1979). Reasoning in early childhood. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 7, pp. 369-76). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1915/1979). *Schools of Tomorrow*. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 8, pp. 205-404). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1916/1980). *Democracy and Education*. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 9). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1920/1982). *Reconstruction in Philosophy*. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 12, pp. 77-201). Carbondale, IL: Southern Illinois University Press.

- Dewey, John. (1922/1983). *Human Nature and Conduct*. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 14). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1923/1983). Social purposes in education. In J. A. Boydston (ed.), *John Dewey: The Middle Works* (Vol. 15, pp. 158-69). Carbondale: Southern Illinois University Press.
- Dewey, John. (1925a/1981). *Experience and Nature*. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 1). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1925b/1984). What is the matter with teaching? In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol.2, pp. 116-23). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1933/1986). *How We Think* 2nd. ed. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 8, pp. 107-352). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1934a/1986). *Education and the Social Order*. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 9, pp. 175-85). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1934b/1986). The supreme intellectual obligation. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 9, pp. 96-101). Carbondale: Southern Illinois University Press.
- Dewey, John. (1934c/1986). Education for a changing social order. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 9, pp. 158-68). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1934d/1986). The need for a philosophy of education. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 9, pp. 194-204). Carbondale: Southern Illinois University Press.

- Dewey, John. (1938a/1986). *Logic: the Theory of Inquiry*. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 12). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1938b/1988). *Experience and Education*. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 13, pp. 3-62). Carbondale, IL: Southern Illinois University Press.
- Dewey, John. (1939/1988). *Freedom and Culture*. In J. A. Boydston (ed.), *John Dewey: The Later Works* (Vol. 13, pp. 65-188). Carbondale, IL: Southern Illinois University Press.
- Hare, William. (1995). Content and criticism: The aims of schooling. *Journal of Philosophy of Education* 29, 1: 47-60.
- Hare, William and McLaughlin, T. H. (1998). Four anxieties about open-mindedness: Reassuring Peter Gardner. *Journal of Philosophy of Education* 32, 2: 283-92.
- Hare, William. (2001). Bertrand Russell and the ideal of critical receptiveness. *Skeptical Inquirer* 25, 3: 40-44.
- Huxley, Thomas Henry. (1868). A liberal education. In Gordon S. Haight (ed.), *The Portable Victorian Reader* New York: Viking Press, 1972: 470-79.
- Mill, John Stuart. (1852). Notes on the newspapers. In John M. Robson (ed.), *Collected Works of John Stuart Mill* Vol. 6, Toronto: University of Toronto Press, 1982: 226-9.
- Peirce, Charles S. (1877). The fixation of belief. In Morris R. Cohen (ed.), *Chance, Love and Logic* New York: Barnes and Noble, 1923: 7-31.
- Perkins, David. (2002). Foreword. In Ron Ritchhart, *Intellectual Character: What It Is, Why It Matters, and How to Get It* San Francisco: Jossey-Bass, 2002.
- Pope, Nick. (1998). *Open Skies and Closed Minds*. New York: Dell Publishing.
- Riggs, Wayne D. (2003). Balancing our epistemic goals. *Nous* 37, 2: 342-52.

Russell, Bertrand. (1952). *The Impact of Science on Society*. London: George Allen & Unwin.

Simpson, Douglas J. (2001). The relationship of educational theory, practice, and research. In William Hare and John P. Portelli (eds.), *Philosophy of Education: Introductory Readings* 3rd. ed. Calgary: Detselig Enterprises, 2001: 29-45.

Notes

¹ All references to Dewey are to volumes in the Collected Works, edited by Jo Ann Boydston. The original date of publication is given for each publication, followed by the appropriate volume in the Early, Middle, or Later Works.

² Dewey is striving to balance the need to be open to new ideas, adding thereby to our store of true beliefs, and the need for that critical assessment which will help to reduce or eliminate error. Russell seeks a similar balance in his notion of critical receptiveness (Hare, 2001). For a related discussion on the relative importance of the cognitive goals of knowing truth and avoiding error, see Riggs, 2003.

³ For an excellent discussion of Dewey's views on teacher education, see Simpson (2001).