FIELDS OF KNOWLEDGE IN SCHOOL AND DEMOCRATIC EDUCATION

In this contribution, we aim to develop a reflection on the educational principle, as it relates to the issue of fields of knowledge in the school system, which we envision in a democratic perspective. To this end, we will first of all briefly discuss the idea of educational principle, and then connect it to the school system. Concerning the educational principle, we will briefly analyze the positions of Dewey and Gramsci, who view this issue in the framework of a democratic education.

The 'educational principle' in Dewey and Gramsci

In the preface to his Democracy and Education, Dewey states that his philosophy «connects the growth of democracy with the development of the experimental method in the sciences». This connection between scientific method and democratic spirit is Dewey’s educational principle. For him, the scientific method in and of itself promotes democracy, because it combines the logic of experimental research (i.e. the testing of hypotheses conceived by human intelligence) with the discussion of results, in all fields, including the social problems of communities. Parallel to this, democracy is the condition in which one makes full use of intelligence to solve these problems, because this way of proceeding makes it possible to hold a truly free debate, in particular as far as social experiments are concerned.

While democracy is the condition in which one can apply intelligence as a method to solve the problems of society, on the other hand the democratic nature of research constitutes a guarantee of its epistemological validity, because any interpretation that fails to be publicly discussed is at risk of being “subjective” in the pejorative sense of the word or, even worse, authoritarian. Thus, an education to the scientific method, to the method of intelligence, is a true democratic education, an education to democracy; and a democratic society is always characterized by a strong commitment to public education.

For Dewey, education does not consists in making young people conform to predetermined models, but in freeing their intelligence and turning it into a mental habit, so that they acquire the ability to autonomously learn to tackle

their individual and social problems in the future: «In order that education of the young be efficacious in inducing an improved society, it is not necessary for adults to have a formulated definite ideal of some better state … what is necessary is that habits be formed which are more intelligent … Then they will meet their own problems and propose their own improvements»;² we might add that the habit to use one’s intelligence is just one of such habits that must be formed. Besides, because using the method of intelligence is a mental habit, it is also a long-term ‘side-effect’ of the school curriculum, and depends on its general organization, on the global didactic system as well as on the system of knowledge fields, not merely on the scientific-natural disciplines themselves, since every field of knowledge can be approached with the reflective style that is peculiar to this method.

For Gramsci₃ too, the fundamental task of education is to promote a democratic tendency in society, although

democratic tendency … cannot only mean that an unskilled labourer becomes a skilled worker, but that any ‘citizen’ can become a ‘governor’ and that society puts him, albeit ‘abstractly’, in a position to become such; political democracy has a tendency to assimilate governors and governed (in the sense of a government exists with the consensus of the governed), ensuring that each and every governed individual can acquire, for free, the abilities and general technical competence required for this purpose⁴ that is, «by educating them … as people who have the ability to think, study, lead, or control the leaders».

Gramsci’s educational principle is, therefore, closely related to the idea that education should not only take care of producers, but also of citizens – everybody should possess the competence required to become a political leader, so that anybody, even if he or she does not actually become a political leader, has the ability to control the leaders, and choose whether to give them democratic consensus. This goal demands an education based on a “new” humanism (the old one was the one linked to the Latin culture and language), which «from technique-labour arrives at technique-science and the humanistic historical perspective, without which we would continue to be ‘specialists’, but would be unable to become ‘directors’ (specialist + politician)».⁵ A new

³ Obviously, in these brief notes we do not claim to provide an interpretation of Gramsci’s pedagogical thought, for which the reader should refer to the classic M. A. MANACORDA, Il principio educativo in Gramsci, Rome, Armando, 1970.
⁵ MANACORDA, Il principio educativo cit., p. 141 f.
humanism, one that establishes a close connection between professional perspective and political competence, which, in a democratic society, should make every citizen capable of performing (potentially and in principle) a leading, directive function. Here Gramsci envisions, albeit in a nutshell, the structure of the new curriculum as a system of knowledge fields, identifying two basic cultural axes, technical-scientific and historical-humanistic, which must be interconnected – thereby suggesting a dynamic combination of both cultures (scientific and humanistic) that encourages a democratic education of the citizen-worker throughout the school period.

What the reflections of the two thinkers have in common is the general method they adopt: to try to find an educational principle for education; which means to ask questions about the unitary formative value of the curriculum, and about the ultimate, overall impact of its global structuring. Besides this, we can identify other analogies: an emphasis on the school curriculum, the education of citizens, and the solving of social problems; a special focus on the development of a scientific attitude, which has to be complemented by a humanistic sensibility. Yet another similarity is that they reflect on the question of the educational principle not in a metaphysical, abstract way, as if this principle had to be the pole star of school education, but in a thoroughly historicized perspective. Education, Dewey states, is always a function of social context; therefore, he establishes a link between the development of democracy and not only the scientific method, but also the age of industrialism. Gramsci, as Manacorda amply demonstrated, connects the question of the educational principle to that of Americanism, that is, to the development of the productive forces and modes of production in the current historical situation.

The cultural canon of school education

What we are trying to suggest is that the form of the educational principle is always related to a vision that focuses on the long-term results of the curriculum, rather than on the immediate results of the disciplines. On the one hand, this vision entails introducing an “ecological” perspective on knowledge, and hence concentrating not so much on the educational value of individual disciplines (separate discussions only lead to a fragmentary idea of curriculum), but on the system of knowledge fields in education as a whole.

On the other hand, we ought to avoid narrowing our focus to the immediate results of education (less or more progress in a particular subject,

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7 MANACORDA, Il principio educativo cit.
8 In this perspective, the question of an educational ecology of knowledge is distinct from that of interdisciplinary approach.
for example), and rather think about educational choices in their long-term effects (throughout the whole schooling period, or at least one full year).

Our thesis is that we need to combine these two viewpoints: the “ecological” and the “long-term”. We need to think about the issue of school education in terms of its long-term, overall educational effects, rather than the immediate impact of its individual elements.

The problem, in other words, is to understand what educational principle must determine the general direction of school education, the ideal point of convergence, towards which it should tend in the long term.

In order to better explain this idea, it will be helpful to make an outline of how school knowledge should be organized. What we offer is only a “rough picture”, obtained through an “empirical” approach, which takes into account some variables of knowledge that are relevant in school practice, without trying to attach any normative or theoretical value to the results.

Roughly speaking, we could say that a school discipline is approached at least in terms of its content and its language, meaning that teaching usually aims at maximizing the learning of (at least) these two components.

This indication, although limited, is enough for our purpose. We should only add that content and language are crucial, but not exhaustive, aspects of a discipline – there is at least a further level of epistemic organization, which includes, but is not limited to, research methods and heuristic strategies. We shall give a new definition of these two components, terming them respectively ‘canon’ and ‘notation’. The idea of canon has to do with the cultural content of the discipline, while notation pertains to its language. Seen in this light, a discipline appears like a specific symbolical-cultural domain, expressible as the system of symbols it employs, and the cultural works it has historically produced through its use.

In the light of these notions, we will now try to analyze the question of the long-term, overall formative effects, which curriculum pedagogy should address. Let us start from the canon.

In the educational field, the notion of ‘canon’ describes the content, which the school institution has selected on account of its acknowledged cultural value. In the humanities, this could be a list of authors and literary works; in the scientific domain, a list of theories or models.\(^9\)

\(^9\) For Dewey this was the central principle in the theory of school education; see for example J. DEWEY, Le fonti di una scienza dell’educazione (1929), Florence, La Nuova Italia, 1996, p. 45.

\(^10\) In this case, the “long term” does not coincide with historical time, but with educational time – roughly, one schooling period.

\(^11\) The notion of ‘canon’ was originally developed in the literary field. A possible, legitimate extension of it to other knowledge sectors would require a series of considerations, which cannot be discussed here. The generalization we are using is therefore to be taken as purely instrumental. On the musical canon see also La storia
Concerning the literary domain, Harold Bloom observed that the canon is indispensable as a consequence of the limited time available for reading, and of the short duration of schooling. Faced with a multitude of authors and works, making choices is inevitable.\textsuperscript{12}

The discourse on the canon can be extended to include the state of the system of knowledge that forms the curriculum. In this regard, we could talk about a second-level canon, but the expression we use here is 'curricular canon', to distinguish it from the 'discipline canon' (the one that pertains to a single field of knowledge). The curricular canon defines the system of knowledge fields in education, which is necessarily circumscribed due to the limited time of schooling. At this logical level, in order to avoid fragmentation, we should think in terms of cultural axes, instead of individual fields of knowledge. By ‘cultural axes’ we mean aggregations of disciplines that are similar or related to each other. If we think in these terms, we can reach a level of reasoning that is hard to see from the perspective of each individual discipline. An illuminating example of this is Gramsci’s reflection. As we have seen, in his thoughts on education as promoter of a democratic society, Gramsci identifies two main cultural axes, technical-scientific and historical-humanistic, without which students can only become specialists in a particular profession. The interrelatedness of both axes throughout the school period should contribute to the education not only of the workers, but also of the citizens of a democratic state.\textsuperscript{13} Without one or the other axis, what we have is a unilateral education, either strictly professional or ethical-political. Therefore, by adopting the perspective of the curricular canon, Gramsci comes to formulate a hypothesis on the general organization of school knowledge, in such a form as to make it potentially inaccessible to those who are merely intent on defending this or that particular discipline.

However, it should be pointed out that while the canon carries with it a tendency to emphasize the educational role of ‘high’ knowledge, this should not imply a depreciation of ‘lower’ fields of knowledge that have regional and anthropological connotations. A hierarchical view of high and low culture, and the delegitimation of the latter in terms of its educational value, does not pay: It only causes a rift between young people and the school institution. The answer is not to dismiss youth culture, which inevitably leads to school disaffection, but to open the experience of young people to other cultural

\textsuperscript{13} A. GRAMSCI, Gli intellettuali e l’organizzazione della cultura, Rome, Editori Riuniti, 2000.
forms as well. The cultural canon, in short, should not be the privilege of an elite of chosen spirits, but the heritage of all citizens – everybody should learn to appreciate Dante, Michelangelo and Beethoven. This is one of the crucial goals for a truly democratic education.

Let us now discuss the second component: notation. In its narrow sense, a notation is a second-degree system of symbols, which means that the symbols do not refer directly to objects, but to other, first-degree symbols. Notations adopt a writing system – linguistic, mathematical, musical, etc. (the written words stand for the oral words, and so on). An important aspect of education is that it enables students to master the notational systems of culture. In the short term, such mastery is a prerequisite to access the canon of a particular cultural field, since the works that belong to it are codified in a specific notation.

The question we should ask ourselves now is: what may be the long-term impact of practice in the different notation systems? The answer is that, in the long run, practice leads to the structuring of specific mental habits for each system of symbols. It something similar to the frames of mind described by Gardner: the acquisition of different types of intelligence, linked to different fields of knowledge – linguistic, musical, mathematical intelligence, etc. A domain-specific intelligence can be described as the ability that is associated with a specific medium or system of symbols, and consists in transcribing experience according to that particular system of symbols, as well as mastering the operating rules of its notation. These mental habits can be the longest-lasting product of school education, the component that is less subject to decline, and they can have a deep influence on the future of an individual. One only has to think of the different outcomes produced by a frame of mind that is strongly polarized on a particular system of symbols, as opposed to one that is more flexible and versatile.

(Translation by Elisabetta Zoni)

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15 On notation see also B. VERTECCHI - R. POZZI, L’apporto della lettura e della scrittura musicale alla costruzione del repertorio dei simboli, in Educazione musicale e Formazione cit., pp. 289-301.
