

The reasons why I call it so fundamental can be easily told.

First, human and animal psychology thereby become less discontinuous. I know that to some of you this will hardly seem an attractive reason, but there are others whom it will affect.

Second, mental action is conditioned by brain action, and runs parallel therewith. But the brain, so far as we understand it, is given us for practical behavior. Every current that runs into it from skin or eye or ear runs out again into muscles, glands, or viscera, and helps to adapt the animal to the environment from which the current came. It therefore generalizes and simplifies our view to treat the brain life and the mental life as having one fundamental kind of purpose.

Third, those very functions of the mind that do not refer directly to this world's environment, the ethical utopias, æsthetic visions, insights into eternal truth, and fanciful logical combinations, could never be carried on at all by a human individual, unless the mind that produced them in him were also able to produce more practically useful products. The latter are thus the more essential, or at least the more primordial results.

Fourth, the inessential 'unpractical' activities are themselves far more connected with our behavior and our adaptation to the environment than at first sight might appear. No truth, however abstract, is ever perceived, that will not probably at some time influence our earthly action. You must remember that, when I talk of action here, I mean action in the widest sense. I mean speech, I mean writing, I mean yeses and noes, and tendencies 'from' things and tendencies 'toward' things, and emotional determinations; and I mean them in the future as well as in the immediate present. As I talk here, and you listen, it might seem as if no action followed. You might call it a purely theoretic process, with no practical result. But it *must* have a practical result. It cannot take place at all and leave your conduct unaffected. If not to-day, then on some far future day, you will answer some question differently by reason of what you are thinking now. Some of you will be led by my words into new veins of inquiry, into reading special books. These will develop your opinion, whether for or against. That opinion will in turn be expressed, will receive criticism from others in your environment, and will affect your standing in their eyes. We cannot escape our destiny, which is practical; and even our most theoretic faculties contribute to its working out.

These few reasons will perhaps smooth the way for you to acquiescence in my proposal. As teachers, I sincerely think it will be a sufficient conception for you to adopt of the youthful psychological phenomena handed over to your inspection if you consider them from the point of view of their relation to the future conduct of their possessor. Sufficient at any rate as a first conception and as a main conception. You should regard your professional task as if it consisted chiefly and essentially in *_training the pupil to behavior_*; taking behavior, not in the narrow sense of his manners, but in the very widest possible sense, as including every possible sort of fit reaction on the circumstances into which he may find himself brought by the vicissitudes of life.

The reaction may, indeed, often be a negative reaction. *Not* to speak, *not* to move, is one of the most important of our duties, in certain practical emergencies. "Thou shalt refrain, renounce, abstain"! This often requires a great effort of will power, and, physiologically considered, is just as positive a nerve function as is motor discharge.

IV. EDUCATION AND BEHAVIOR

In our foregoing talk we were led to frame a very simple conception of what an education means. In the last analysis it consists in the organizing of *resources* in the human being, of powers of conduct which shall fit him to his social and physical world. An 'uneducated' person is one who is nonplussed by all but the most habitual situations. On the contrary, one who is educated is able practically to extricate himself, by means of the examples with which his memory is stored and of the abstract conceptions which he has acquired, from circumstances in which he never was placed before. Education, in short, cannot be better described than by

calling it *the organization of acquired habits of conduct and tendencies to behavior*.

To illustrate. You and I are each and all of us educated, in our several ways; and we show our education at this present moment by different conduct. It would be quite impossible for me, with my mind technically and professionally organized as it is, and with the optical stimulus which your presence affords, to remain sitting here entirely silent and inactive. Something tells me that I am expected to speak, and must speak; something forces me to keep on speaking. My organs of articulation are continuously innervated by outgoing currents, which the currents passing inward at my eyes and through my educated brain have set in motion; and the particular movements which they make have their form and order determined altogether by the training of all my past years of lecturing and reading. Your conduct, on the other hand, might seem at first sight purely receptive and inactive,--leaving out those among you who happen to be taking notes. But the very listening which you are carrying on is itself a determinate kind of conduct. All the muscular tensions of your body are distributed in a peculiar way as you listen. Your head, your eyes, are fixed characteristically. And, when the lecture is over, it will inevitably eventuate in some stroke of behavior, as I said on the previous occasion: you may be guided differently in some special emergency in the schoolroom by words which I now let fall.--So it is with the impressions you will make there on your pupil. You should get into the habit of regarding them all as leading to the acquisition by him of capacities for behavior,--emotional, social, bodily, vocal, technical, or what not. And, this being the case, you ought to feel willing, in a general way, and without hair-splitting or farther ado, to take up for the purposes of these lectures with the biological conception of the mind, as of something given us for practical use. That conception will certainly cover the greater part of your own educational work.

If we reflect upon the various ideals of education that are prevalent in the different countries, we see that what they all aim at is to organize capacities for conduct. This is most immediately obvious in Germany, where the explicitly avowed aim of the higher education is to turn the student into an instrument for advancing scientific discovery. The German universities are proud of the number of young specialists whom they turn out every year,--not necessarily men of any original force of intellect, but men so trained to research that when their professor gives them an historical or philological thesis to prepare, or a bit of laboratory work to do, with a general indication as to the best method, they can go off by themselves and use apparatus and consult sources in such a way as to grind out in the requisite number of months some little pepper-corn of new truth worthy of being added to the store of extant human information on that subject. Little else is recognized in Germany as a man's title to academic advancement than his ability thus to show himself an efficient instrument of research.

In England, it might seem at first sight as if the higher education of the universities aimed at the production of certain static types of character rather than at the development of what one may call this dynamic scientific efficiency. Professor Jowett, when asked what Oxford could do for its students, is said to have replied, "Oxford can teach an English gentleman how to *be* an English gentleman." But, if you ask what it means to 'be' an English gentleman, the only reply is in terms of conduct and behavior. An English gentleman is a bundle of specifically qualified reactions, a creature who for all the emergencies of life has his line of behavior distinctly marked out for him in advance. Here, as elsewhere, England expects every man to do his duty.

V. THE NECESSITY OF REACTIONS

If all this be true, then immediately one general aphorism emerges which ought by logical right to dominate the entire conduct of the teacher in the classroom.

No reception without reaction, no impression without correlative expression,--this is the great maxim which the teacher ought never to forget.

An impression which simply flows in at the pupil's eyes or ears, and in no way modifies his active life, is an impression gone to waste. It is physiologically incomplete. It leaves no fruits behind it in the way of capacity