

SCHOOL EDUCATION IN RELATION TO THE MENTAL HYGIENE OF CHILDHOOD.

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PUBLIC opinion is gradually being educated to the necessity for the medical inspection of school children. For evidence we need only refer to the fact that students in training for the office of teacher now undergo such a course as shall fit them to observe the more obvious physical defects (defects of eyesight, hearing, general state of nutrition, &c.) that may render children unfit for mental work. This may be regarded as a preliminary step or correlative to an organised inspection by competent medical authority, into whose hands the teacher may place his report. The teacher, we may anticipate, will thus act in co-operation with and assist the medical inspector. Some system of medical inspection is without doubt much to be desired, and much good would almost certainly result therefrom, more especially in those cases which are not referable for ultimate cause to the general social condition of the parents, for no system of school supervision will entirely counteract the evil effects on the health of the child of the squalid home or the careless parent.

We have no desire to minimise the benefits that would result were such a system introduced in its fullest aspect, for improved health in school children must eventually mean increased national prosperity:

we only venture to suggest that *on the strictly mental side* there are at least equally important questions in which medical men as a whole must be vitally interested, and to which they alone are capable of giving a really trustworthy answer.

Are the subjects studied in the ordinary school period, for example, of such a nature, and are they taught by such methods as are conducive to the mental health of the *normal* child?

Are medical men satisfied that school method is such as to preserve that healthy mental spontaneity which is so marked a characteristic of early childhood?

Is the mental stamina not being seriously endangered by the pressure and monotony of school life, more especially in the early adolescent period?

And what of physical education? Is the proportion of time devoted to formal gymnastic exercises and informal school games sufficient?

These questions, we contend, have hardly been considered, at least by any competent medical specialist.

The school programme as it now exists seems to be the resultant of the not always concordant opinions of educational specialists in the various subjects, each struggling for what he regards as a proper share of the school day, and in the final resultant the classical specialist has emerged certainly not the least victorious, while the realist has little cause for congratulation.

We submit that the above questions are worthy of the most careful consideration, and that it behoves those interested in the hygienic development of youth to make their voices heard in this matter, and insist that no Education Department prompted by educational enthusiasts shall do anything to injure the *mental* health of the children.

In order to give as far as possible answers to these questions, we shall review school work from

- (1) What may properly be termed the elementary stage—from five to fifteen years of age; and
- (2) What may be called the secondary school stage—from fifteen to eighteen years of age.

Though in recent years certain innovations in the right direction have been introduced by the Education Department the elementary period is for the most part occupied in drilling children in the three R's.

Pupils at the end of this period are expected to be able to read fluently a passage of English of moderate difficulty, write a letter in grammatical English on some simple subject, have some elementary knowledge of the leading facts of history and geography, and exhibit some aptitude in elementary calculation. In addition to this, if the pupil has elected to enter an intermediate school, *i.e.*, one specially designed to give an education suitable for what may be called the period of late childhood—twelve to fifteen years of age—he is expected to add a knowledge, by no means to be despised, of one or two foreign languages, and also to undergo a period of practical training in elementary science—physics and chemistry—this to occupy three hours of the normal working week of thirty hours. It will thus be seen that the formal language element dominates the elementary school course. It begins at five years of age, when children are drilled simultaneously by wearying repetition of spelling (and English is by no means a phonetic language), and ends with the forced grammatical study of one, if not two, foreign languages at fifteen years of age. It is certainly true that a little Nature

study is attempted in the earlier stages and experimental science in the later, but observe the proportion—while the formal side receives twenty to twenty-five hours per week, the realistic must be content with the remaining five to ten hours.

What of school games and physical exercises? Except in the larger towns, no organised system of school games under supervision is attempted, while gymnastic exercises receive a few minutes occasionally “for the relief of mental work”—a mere antidote for an overdose!

Now, we submit that such a system of instruction is for the most part entirely at variance with the physiology of childhood, and that little heed has been given to evolutionary psychology in framing such schemes of primary instruction. They bear the stamp of educational experts who are more familiar with their own special subjects than with the general mental build of the pupil at the various periods of childhood, and who thoughtlessly apply their adult standard to the brain of the child and adolescent. We are of opinion that Sir William MacEwen, in his recent address to the secondary teachers of Scotland, has issued a warning none too soon. He said—“Some believe that education consists solely in learning the twenty-six or more characters which make up alphabets and the variety of combination of those letters which form words and sentences, and their world consists of thoughts thus conveyed. Such receive their pabulum from others. They are thought-fed, and when they make use of those thoughts from the stores of memory they are only thought-phonographs.”

We agree with this protest against the too common idea that the child mind is a thing to be forced or stuffed instead of a thing to be led or guided. Forcing prevents evolution. It is a sheer lending and borrowing of knowledge.

We are therefore of opinion that the elementary school curriculum stands in need of the most drastic remodelling if the healthy working of the child's mind is, as it seems to us to be, the first consideration. The elementary school age is, primarily, an age of progressive co-ordination of muscle and mind. In addition, therefore, to the movement and activity so natural in childhood, and which finds its spontaneous expression in the various school games, we plead for a more elaborate and extensive system of hand-and-eye training. Our reason for this is that we are persuaded that, while we cultivate a child's powers of doing things with its hands and train its powers of observation, we at the same time increase a child's powers of thinking, and that, too, along the lines most natural to the child mind. At present this hand-and-eye training is limited in the majority of cases to the later period of the elementary school, and takes the not too congenial form of a course of manual instruction in woodwork.

This is the inverse of what ought to be. Some form of hand-and-eye training, suited in weight to the muscular development at each age, should find a place throughout the entire course, and should occupy a more prominent place on the school time table than it does at present. A much larger proportion of the school day should, moreover, be devoted to realistic observational Nature study, for it affords pleasure and is educative. It is a form of instruction which utilises the natural pathways to the brain of the child; to force instruction through any pathway other than the natural one is bound to produce, not a living useful knowledge, but the unthinking mechanism of the automaton. Children should be encouraged to observe plant and animal life in its natural setting, and to propound their own questions and submit their difficulties to be discussed in class. We are aware that

a movement in this direction has already been made, but for various reasons—ill-trained teachers on the one hand, and an inspectorate steeped in classical traditions on the other—the subject is fought shy of by teacher and pupil alike. We little wonder, therefore, that men of original bent of mind who have excelled in after life, when asked what effect their school training had on their development, have almost invariably declared their school education to be of little or no value, except in so far as it gave them acquaintance with their mother tongue. This observational Nature study then receives most inadequate time, certainly not more than three lessons per week, whereas, in our opinion, it ought to form the *chief mental pabulum* of at least the early school period. Were such the case, we venture to suggest that the more formal language work would be undertaken with less irksome difficulty than is at present experienced. Language, it must be borne in mind, is a late product in the evolution of mankind, and due regard should be paid to this principle. Much of the difficulty which children experience in language study lies not in the language proper, but in the paucity of ideas which afflicts them. The adult mind can hardly appreciate the mental strain to which children are subjected in this connection. The healthy influence of directed observation in an extended course of Nature study would be great, supplying, as it would, abundant material for ideas which might be translated into language written or spoken. Organic memory, too, would be greatly strengthened on sound hygienic lines—association of ideas linked with verbal expression would replace the more superficial and fleeting verbal association.

A similar change of method is extremely desirable in the teaching of history and geography. They ought

to be regarded as part of the observational scheme of object-lessons. Children must study these subjects at first hand, and the bookishness that has haunted them must be abandoned if they are to be studied on lines compatible with the principles of mental hygiene. It is not too much to say that instruction in these subjects is too often placed before children in a most repulsive form that cannot be assimilated, and that can no more whet the mental appetite than a repulsive dish can wet the natural appetite. Little wonder that children dislike it, little wonder that the attention wanders and the memory fails. The only remedy is to transform it and develop it within the range and scope of the child's mind.

So with elementary mathematics—objects must be taken, handled, and measured by the pupils. Problems in mensuration having direct connection with the everyday life of the pupils must be framed and worked. Interest can thus, and only thus, be aroused and maintained. Mathematics must not be a mere matter of figure-juggling with little or no meaning. One remark remains to be made—the greatest care must be taken that the thought involved in any problem is well within the mental grasp of the child, that in particular the thought is *not too general*. This is a most important dictum, for grievous mischief, it seems to us, may be done by overstrain of the young mind in endeavouring to grasp too general thought—mischief perhaps more irremediable than physical overstrain.

Viewed from the standpoint of mental hygiene, then, the chief defects of our elementary educational system may be summed up under four heads—

- (1) Excessive language study, especially in its formal aspect.

- (2) A forcing of the minds of children to realise abstract general principles at an age when their mental evolution is not suited to such.
- (3) The want of a sufficiently elaborate system of hand-and-eye training to afford scope for proper muscular co-ordination.
- (4) The absence of a system of formal gymnastics under adequately trained instructors.

Medical men will readily understand and frequently see examples of the effect of such a system even on the normal child, but more particularly on the highly nervous child, who lives perpetually in a state of torment from terrors, real or imaginary, terrors which haunt him into adult life as the sole recollection of the so-called "happiest days of his life."

Passing to speak shortly of the secondary school period—fifteen to eighteen years of age—we find the same faults conspicuous, perhaps in a degree accentuated. Till recently the course was framed in accordance with the bursary competition subjects for entrance to the University Arts course. These were Latin, Greek, Mathematics, or French and German. To any scientific body the extremely antiquated nature of this will be at once evident. Recently the Scotch Education Department has insisted that experimental science should form an integral part of the course, but in most cases the work has simply been added to what previously existed, so that, while this has done little to remove the objection, there is grave danger of actual overpressure, especially in the case of girls, in the early adolescent period.

It will be seen, then, that there is ample ground for our contention that the mental nature of the child—its physiological psychology—has not been the guiding principle in the framing of the curricula either

in our elementary or secondary schools. In both there has been too much demand that the child should adapt itself to the lesson and too little adaptation of the lesson to the child. The knowledge to be imparted has received more attention than the individual to be educated. Dr. Struthers, in a recent report on secondary education, hints that some degree of specialisation is desirable at this stage, that children cannot at this stage be expected to be cast exactly in the same mould; but school authorities cannot be expected to seriously reform the course so long as the bursary competition for entrance to the University remains on the rigid classical lines of the past. Each stage of growth of a child's mind requires a different stimulus to encourage it, so we plead for a certain amount of specialisation all along the line, for a child is not to be moulded into any particular stereotyped shape, but is a plastic thing whose faculties, as they naturally evolve, should be encouraged and developed to their utmost capacity. We therefore welcome the reduction in the size of classes for the sake of the *mental* as well as the physical health of the pupils.

In the secondary school, moreover, as in the primary, too much has been expected of the pupil in the region of general thought. A forcing of the mental process is also here evident. While it should be the teacher's part to watch the natural development of a pupil's activities and direct new powers as they appear, too often there is an attempt to forestall such development, to create a mental precocity whereby perfectly natural and *spontaneous* growth is hindered. Nature does nothing by leaps and bounds; forcing the mental process is therefore unnatural, and the sudden jars of forced mental effort can never be pleasurable or of permanent benefit. Mental development should be as

free from "growing pains" as physical growth; something is wrong if it is painful to grow, physically or mentally. As a glaring example of this forcing process, take the following:—

Dr. Clouston has expressed an opinion that in the teaching of English such study as the following would be in accord with hygienic principles:—

"Robinson Crusoe," Ballantyne and Marryat, *for the period of late boyhood.*

Scott and Dickens *for the early adolescent period.*

Tennyson and George Eliot *for the late adolescent period.*

Shakespeare and Thackeray *for the period of manhood.*

In actual work in the Scottish secondary schools it is safe to say that the study of each of these is entered on from three to four years earlier than the age he specifies, and the penetration and grasp of these expected may be inferred from the following question taken from a recent leaving certificate examination paper—"Discuss the following statement with illustrations from the plays you have read—'The heroines of Shakespeare's comedies are all more practical and efficient than the heroes.'" This, mark you, is expected from pupils of seventeen years of age, and possibly earlier in the majority of cases, a task that would try the mental powers of many students of Shakespeare of mature age.

A like criticism might be made of the other subjects of the secondary course.

Thus, what may be inferred as the guiding principles in determining the elementary curriculum are alike evident in the secondary. Only in the most superficial way has the nature of the subjects as a whole, or the progressive difficulty in any one of them, been made to

correspond with the unfolding mind of the child or adolescent.

We have made no reference to the development of the moral or religious ideas and their potent influence on mental hygiene, nor have we alluded to the critical sex age of early adolescence. The early association of school pupils, if properly supervised, goes far to inculcate those moral principles which lie at the foundation of social order in society, and the study of suitable literature during school life undoubtedly materialises some form of ideal character, however crude, as each age has an ideal peculiar to itself. This subject is, primarily, one for the parent, while the dangers of the age of puberty must be a matter for family physician and parent alone. For this reason we have confined our remarks to the physical and intellectual side.

In conclusion, to meet the difficulties of the existence of which we are convinced, and to overcome the defects we have endeavoured to outline, we venture the following suggestions. It is highly desirable, *first of all*, that some advisory body of authorities in mental hygiene should act in conjunction with the Scotch Education Department. This would surely rescue the child from the purely educational enthusiast, and ensure that the nature of the subjects and the standard demanded in each were such as to be within the grasp of the child of average mental attainment. *Secondly*, there is the need of systematic medical inspection of schools and a need of the most scrupulous care in the choice of the medical inspectors. We regret to see the present tendency to appoint by preference young men specialised in public health. To lay the duty of medical inspection of schools exclusively on the public health staff of the country is, to our mind, a mistaken conception that would deprive us of the services of

many medical inspectors who, by their clinical experience of children's diseases and their tact in dealing with them, have the kind of knowledge which is most valuable for the purpose, for the ideal medical inspector seems to us to be the man who can interpret the facts of physiology and pathology in the light of his clinical experience, and who can distinguish clearly between the physiological and the pathological, even between the exaggerated physiological and the pathological in the mental, moral, and physical domains.

The medical inspector's work should not be confined to the examination of children for those physical defects which may interfere with mental work. School inspection should be regarded as a distinct branch of medical work, and should not be simply added to the public health officer's work, with which it has practically nothing in common. The work calls for men of wider outlook educationally than one can expect to find in the public health specialist.

Thirdly, we contend that the training of the elementary teacher requires attention. A short time ago Dr. Noel Paton suggested that students in training for the office of teacher should receive some instruction in the humble science of physiology in place of the somewhat bookish knowledge of hygiene they at present receive. This, we venture to suggest, is in the right direction. Surely no teacher can be regarded as competent to impart even the rudiments of an elementary education who is ignorant of the structure of the body, including the nervous system, and the function of its various parts. This knowledge of physiology would help to equip teachers as efficient assistants to the medical officer, for they would then be in a position to supply the medical officer with such an account of any individual pupil's development as

would enable him to determine whether such development were normal or abnormal, and, if in any way abnormal, the medical officer ought to be empowered to modify the school course for such pupil—it might be by increase of physical exercise or by restraining certain activities or otherwise as might seem to him advisable. Such a knowledge would not only be invaluable as an aid to the work which Dr. Leslie Mackenzie advocates (for no one can recognise the abnormal who is not familiar with the normal), but it would be of the greatest service as laying a sound foundation for a real knowledge of child psychology.

The ordinary University course of logic and psychology is of no value; what is wanted, after some elementary knowledge of anatomical structure and physiological principles, is a course of psychology more or less akin to experimental physiology—a course which, when taken, will cause the future teacher to look to his pupils for his psychology, and not to his bookshelf. It seems to us that, while the Department's demand for a higher standard of knowledge in students is extremely desirable, this acquaintance with practical physiological psychology is almost a *sine qua non* for successful and healthy school work. There should therefore be ample provision in all training colleges for the practical study of child life.

DISCUSSION.

The PRESIDENT—Ladies and gentlemen, you will agree with me that this is a very practical paper. The paper was to have been followed by remarks from Dr. Leslie Mackenzie, who has sent an apology that he is unable to be present at the Congress, and I therefore ask Mr. Fleming, His Majesty's Inspector of Schools, Melrose, to follow Dr. Watson.

Mr. C. J. N. FLEMING—Mr. President, ladies and gentlemen, I have had very much pleasure in listening to

the paper read by Dr. Watson in connection with mental hygiene and training of children, and I am glad to say that I am in thorough accord with practically everything he has said. I think his description of elementary education and technical education was fairly accurate, but I am not prepared to admit that it is absolutely accurate, and I think it embodies rather the popular view. I think that, as a matter of fact, elementary education at present is a little more in accord with the ideas he has set forth than the description he gave of it would lead one to suppose. I do not know that it was quite accurate, and I think that teachers and inspectors are really all trying to realise some of those ideals which Dr. Watson so ably explained; for instance, taking elementary education, I think we all realise the importance of introducing far more physical exercise in the shape of games, in the shape of recreation, and in the shape of certain exercises conducted by expert teachers who have been specially trained for the purpose, but you must remember this, that there are great difficulties in the way of introducing new subjects straight away into a school, and the greatest difficulty of all is to overcome public opinion. We educationists are generally looked upon as faddists, and, if we introduce something new, people are unacquainted with it, and they do not understand it, and they do not appreciate it, and I assure you that one of the greatest difficulties in introducing new subjects is to overcome public opinion. Now, to show you what I mean. In a country school it is desirable, as far as possible, that the teacher should take his children out on a fine day and, instead of sitting in a school during the hot, sultry, summer days, it is advisable that he should take them to the roadside and there conduct the lessons in realistic subjects. The teacher may wish to follow that course, but he says, "If I do that, the people say that I am not doing my work, that I am not doing what I am paid for, and that the children have not gone to school to be taken to a hillside to amuse themselves." Now, ladies and gentlemen, that is what we have got to overcome. It is not a question of introducing these subjects within the four walls of the classroom, but we have got to overcome the inertia of public opinion against what may be termed the advance of these new ideas.

Of course, we have got to struggle, and I believe we are attaining our object, but, among other things, you have got to remember that it is also a question of money. For

instance, take, again, physical exercise—a subject in which we are all very much interested—it is very desirable that, if you are going to have physical exercise taught in school, it should be taught by a person who is properly qualified and trained. The Education Department issued a syllabus a few years ago, but it was found that the course in that syllabus in the hands of persons who did not know the object of the particular exercise was not very successful. We endeavoured, therefore, to obtain people who had been trained not only in practical exercises and knowing how to do the particular movements, but people with some knowledge of physiology and anatomy and hygiene, who should conduct these classes, but that means money, and the rate-payers object to pay it. Then what are we to do? They say they object to pay a salary to this person coming here to teach our children in these exercises, but we have again to overcome public opinion, and public opinion in a very strong position, because it touches the pocket. Now, you see, it is rather hard, and I am using this as an illustration of the difficulties to introduce new ideas. What we have to do, then, is to combat public opinion and to carry the public with us, and, if we do that, I think the work will be very much easier.

Then I would like to assure this company that I take a hopeful view of the ideal set forth by Dr. Watson. I do not say that we shall realise the objects yet, but we are hopeful. There was a remark made by Dr. Templeman in his address, and I should like to allude to it. He says that it is very desirable to provide in some way for the feeding of school children, and that, in doing so, the cooking of the meals might be done by the older children. It is well to know that in a country school in my district in Berwickshire that is being done. They have a soup kitchen in the winter time, where they supply a bowl of soup, or as many bowls of soup as the children care to take, and all of them can manage one bowl, and for this they pay a halfpenny a day. The food is entirely prepared by the older girls in the school. That is an excellent illustration of what is being done, and I can assure you that, if you can help us in any way in trying to build up public opinion and in influencing it in the work of the school, you will be doing a great deal towards bringing these ideals to pass. It will give us great help, and I do wish to give you the assurance that we are trying to march forward on those particular lines. I think we are perfectly well aware of the ideals enumerated by

Dr. Watson, and we are trying our best to improve upon them. Well, ladies and gentlemen, I think I have already occupied my share of the time, and I have had very much pleasure in making these remarks. (Applause.)

Councillor MACDONALD, B.Sc. (Motherwell)—Mr. President, ladies and gentlemen, this is the first opportunity I have had of being present at a Sanitary Congress, and I was not aware that you desired any discussion on the papers apart from the gentlemen mentioned in the programme. Seeing that you have thrown the discussion open, I should like to say, as one practically engaged in this subject, that the teaching profession would be greatly indebted to any one who would see that Dr. Watson's paper was put into the hands of the examiners who are responsible for the fearful and wonderful questions by which our pupils are annually tested at leaving certificate examinations. I do not think that Dr. Watson has chosen the best audience for this paper, for it is more suitable to a meeting of teachers and psychologists than Sanitary Inspectors and medical men. The author has touched on many matters of the deepest interest to those engaged in developing the mental faculties of the rising generation, but I think this is outwith the province of the sanitary authorities. In the next paper to be read I trust we shall obtain some valuable hints as to what teachers might do for the *physical* well-being of the children in school, but in regard to the careful development of the *mental* powers I claim that the teacher is best qualified to judge. During school hours he stands *in loco parentis*, and, by training, experience, and love for his pupils, he may be confidently relied upon to do this duty faithfully. Last year Dr. Carstairs Douglas issued a paper on "The Care of the Health of School Children," in which he pointed out that human physiology was an essential part of the training of a teacher, that incipient diseases of the eye, ear, spine, &c., are at once noted, and proper means taken, by physical drill or other means, to check these symptoms. The teacher will eagerly welcome the co-operation of the sanitary authorities in regard to such matters, and the proper environment of his pupils, but I am doubtful if he will welcome interference in the department he has made his own. A casual visit from a medical man, an opinion almost entirely based on the appearance of the child, is of little value compared with the intimate knowledge the teacher has gained from daily intercourse. External are not always a sure guide to mental powers, as it is well known that genius, neglectful of the conventionalities, has been

mistaken for lunacy. A few years ago, when the pernicious system of paying school grants on the results of individual examinations was in vogue, Dr. Watson's contention that teachers were educational faddists, and forced or crammed their pupils, had some foundation; but, under the present more enlightened system of school inspection, the temptation to do so is entirely removed. The progress of the pupil is regulated by his mental powers, and the opinion of any sanitary authority or medical man could not quicken or retard its pace. Sanitary science is no longer playing the part of Cinderella to its sister sciences, as it is now taking to itself a very wide field. In addition to purely sanitary matters, it has much to do with the health and happiness of the people, but the mental culture of the children should be left to the teaching profession. In our big towns the services of specialists can be obtained at any time, but in the country districts the ordinary practitioner has to turn his attention to every disease that flesh is heir to. The same may be said of our schools. In the cities special schools with expert teachers are provided for physically and mentally defective pupils, but the village teacher must do the best he can with every pupil entrusted to his care. As one of the teaching profession, I would say that we are under a very great obligation to Dr. Watson for his thoughtful contribution on this vexed question.

County Councillor HAMILTON (Bellshill)—Mr. President, ladies and gentlemen, I am neither a school teacher nor a medical man, but I claim to be as much interested in the education of the youth as either of them. I have listened with very great interest to this address and to the discussion upon it, but I am not so sure that I agree with his Majesty's inspector that it is public opinion after all that is in the way. I have had many years of public life, and I find that public opinion will follow those who lead, and I have no difficulty whatever in getting public opinion to follow or the ratepayers to pay for what their representatives judiciously agree to. I should like to say this in the presence of his Majesty's inspector, that if the department would more fully consider the subjects that they put upon us, then a great deal more would be accomplished, and with greater advantage to education, but we have ill-considered schemes by the department foisted upon the schools from time to time which have only to be put into practice in order to be condemned, and for which there is no use whatever. (Applause.) As to the doctors' contention that we need a medical man to come in and tell us what our children are

to be taught, and how much, I am not so sure that that is their province. I think the best man to guide us is the teacher. It is not the medical man but the man who has had the training in the education of the children and in the instruction of these children, and who best knows the capabilities of each child's mind. He is the man under whom the child has grown up. To say that our headmasters are to take their instructions from the medical practitioner as to what a child is, or is not, to be taught is absurd. We ought to go very carefully into the introduction of medical inspection into our schools. I for one believe that it is owing to the present system of our medical men visiting all kinds of infectious diseases that we have so many epidemics. (Laughter.) I was here last night and heard Dr. M'Vail stating the fact that it was possible for a person to have as many as four different infectious diseases at one and the same time, and that he knew a medical man who visited fifty patients a day, and I know some club doctors who visit from fifty to a hundred patients a day, some of these visits in the slums of the town, and then go from home to home, and I ask you, ladies and gentlemen, if they are not as likely to carry infection from one place to another as any other man. In many of these homes they would not use water or a towel, if provided them, to clean their hands, stethoscopes, and thermometers, and they go from house to house, and, I believe, that is a source of dissemination of disease all along. We have plenty of epidemics already, and, if you allow these men to go into our schools, we will have more. I ask you, therefore, to pause and consider the matter; at least we should not jump at it, but fully consider it before we adopt any of these suggestions.

Mr. STERLING CRAIG (Edinburgh)—Mr. President, ladies and gentlemen, there are two points that I would like to mention in connection with this paper. In regard to education we don't seem, I think, to have realised what the department of education is; that is, what are the limits to the work of the schoolmaster and to the extent of his right to interfere in the life of the child, nor, on the other hand, have we any very clear idea of the object we are aiming at in education. Our present system has grown up in a haphazard way. The foundation idea of our education still is that the child is educated by its parents at home, and it goes out to the board school simply to receive a few additional bits of learning that its parents cannot give it, because its parents are not experts but general practitioners. While this is still the theory of our educational system, we

have had duty after duty, and subject after subject piled on to the schoolmaster till he is now expected to do the whole work of education, which is a totally different object to that for which the schools were first created and organised. We have now to consider whether the State is to take charge of the whole of the child's education or only the extra bits that the parents cannot give. We seem to be driven by circumstances to take charge of the *whole*. If that be the case, and if we are to abolish home lessons, we must take the whole life of the child into consideration. When a child is running about and learning to use its limbs and its senses, it is doing every bit as useful work as when it is in school. (Hear, hear.) It is one thing to say that we shall put experts to do the work of teaching and leave the child to grow up naturally; it is another to see that the parents are attending properly to the physical development of the child.

The other question which does not seem to be properly faced is, "What is the object of education?" Is it to develop and fully equip a man prepared in every way to become a useful citizen? Taking an analogy from forestry, are we to grow fine individual trees or to plant the trees so closely together that there is no room for them to expand, and so that they must grow tall and make good timber? Do we want "hands" as commercial timber, or fully developed, beautiful trees? I think the State has a right to demand "hands" to work and bodies to be shot. The State has not to do with a fully developed creature; we have got to realise that. In the old days men were bred by the State, and the duty of the State was to breed them to be killed; but under the new system the State rears them to manufacture stuff, and there the duty of the State ends. If we are to adopt the ideal of the fully-developed life, we have to realise that we are tackling a very big job. We must go ahead, we must clear our minds as to what we are to do, and the present system is only a compromise—a compromise that has outlived its day.

Dr. WATSON, in reply—Mr. President, ladies and gentlemen, I must thank the gentlemen who have taken part in the discussion, but I am rather disappointed in one way, that no one has made any reference to the mental forcing of the child. The children are being forced more than they should be, and, as I have stated, the leaving certificate examinations afford abundant evidence that questions are set that boys and girls of seventeen years of age simply cannot appreciate. There may be an occasional child who may make a shot at a thing, but to attempt to drive children

to the extent that they are being driven seems to me to be entirely wrong. I am sorry that no one has made any reference to that, because I think that is really the most important defect in our present school system, and it is quite easily seen from beginning to end. I must thank you, ladies and gentlemen, for the manner you have received the paper. (Applause.)