

A man or woman cannot be a ripe scholar until he has recognized great trends of thought in every field of knowledge, has been able to fix the changes of a century or more into those trends, has gone farther and at least faced Henry Adams's great question, "Is it a biological world, a world of infinite development in which all life, all knowledge, all moral conceptions, develop infinitely, or is it a physical world which is slowly running down, with matter continuously dissipated into useless form, with greater knowledge bringing greater disillusionment?" Henry Adams accepted the latter belief and wrote what I would call *The Great American Tragedy*.

Others find in the world, and if this be sentimentalism, I cry "peccavi," a series of laws in all sciences that seen in clearer light are but one, natural law and fundamental honesty. There is just one universal law, and it is that all things work under unchangeable principles which man can and should and must know. There are no exceptions to the law of gravity, nature plays no favorites; there is no exception to your law of gaseous bodies, the law will play fair with you if you do your part.

The ripe scholar is the one who knows that we live in a world of law, that all attempts to change laws, physical, economic, or moral, must fail, that man has just one task, to find out more accurately the laws which we know but slightly today. Nature in none of her varied forms is going to change her laws for you, but she has put them there for you to use with absolute confidence if you but play your part. And this is the answer to Huxley's great question, "Is the eternal power that rules the universe a friendly power?" Yes, friendly, but rigidly honest.

And again I ask what is scholarship? It is such an intense love for the truth that the scholar goes deep, investigates accurately, reads broadly, and keeps his head in a universe that he is reaching out to know.

JAMES ELLIOTT WALMSLEY

THE TEACHER

GEORGE Herbert Palmer, himself a great teacher, had the power to exalt his profession. In one volume called "The Teacher" he does this on the more general lines of exaltation. In yet another he gives the concrete biography of his wife, Alice Freeman Palmer, who at Wellesley College laid a gracious impress upon so many young women. She is extolled in the Chapel there by a marvellous sculpture which represents her as pointing her pupils on to the heights and which conveys a strange sense of merging instructor and scholar into a single mood of hope and idealism—as if the one were giving purpose and the other were giving response.

So the address today is to deal with the Teacher. The theme is not often treated at Commencements, perhaps because it lends itself to high feeling rather than to deep thinking. The products of education seem to hide its producers. The teachers sit in the modest background, and are scarcely aware that they are overlooked. But surely occasionally they should be glorified. We should seek to communicate a portion of the "good things" that we carry in our hearts, as we pass those who have instructed us through several stages that may be roughly described by the nouns—estimation, depreciation, and appreciation.

I.

The importance of the teacher can scarcely be overstated. Fully one-fifth of the average life within the fences of civilization is spent with him. At five or six years of age the child goes into his presence. From then until he is eighteen, or twenty-one, or twenty-four, or twenty-seven, that youth spends more of his conscious hours with the teacher than he spends with his parents. In a way indeed the teacher becomes a substitute for the parent. The school system is still an infant—even though it seems so well fixed into our national life. Prior to its coming the home

was a school. Sometimes the governess, and more often the father or mother, became the instructor of the child. Susannah Wesley was the teacher of her nineteen children. When each came to his fifth birthday the busy mother in the Epworth Rectory sat down with him after the frugal breakfast. Ere the sun sank into the evening shadows, the child knew his letters and had his start in reading.

In a way the picture is typical of the not-distant day. But in season the increasing complexity of modern life compelled a change. The public school became an adjunct of the private home. The teacher, *in loco parentis*, became the parent's proxy. If Shakespeare was right when he said that parents stand to their children in the stead of God, and so become the lieutenants of heaven, then teachers are the second delegates of the Most High—the officers but twice removed of that intellectual grace that reaches up to the Omniscience of the Infinite Lord.

II.

Eventually earlier teachers pass their products on to their partners in collegiate life. The transfer is made in that period of youth when the sense of freedom is likely to outrun the sense of responsibility. For a time, therefore, the teacher suffers depreciation. The students are not old enough to have experienced the defeats and disappointments and sorrows that come only with the years. They have an idealism not yet mixed with charity. Some of them, at least, are in that interesting section of life where they mistake swelling for growing. Jokes on the professors slip into the college annuals. Personal peculiarities are the subjects of mimicry. Unless carefully censored, the yearly show is an exhibit of professional idiosyncrasies or even weaknesses. The teachers' nicknames arrive—being at first in the way of ridicule, though later to be converted into terms of affection. In addition to half-serious criticism, there is also good-natured raillery—sometimes ex-

pressed in jokes, sometimes in speech.

These are the more superficial signs of depreciation. There is likewise a deeper sign expressed in the student code. In its more extreme articles this code declares the faculty the hostile camp and then gives the usual definition of "treason" as lending "aid and comfort to the enemy"! In milder articles it prohibits unduly close association with teachers, or, if it does not do that, it makes such association a "questionable amusement."

There are certain parts of that student code that are passing or are being modified. It may be that the athletic life of the colleges is in a degree responsible for this good change. At any rate the interest of teachers in vigorous physical contests in which they themselves cannot participate has given a common field, in the higher sense, where teachers and students often meet. Portions of the student code will abide, because they should abide. The student who spies on students will remain an outcast, while the student who "tells on" students, unless in some deeper matter of personal honor or of civic responsibility, will continue to dwell in the land of contempt. But those parts of the student code that put false restraint upon the association of teachers and scholars must yield utterly to the new school humanism of our day.

Discipline is sometimes involved. The figure of speech that expresses the situation somewhat is this: The teacher becomes a step-parent, and that, too, more quickly than the conventions of good society allow! The usual resentment may come. The student revels in that quick and glorious liberty. To study when you please; to go to bed when you will; to select such companions as you desire; to dispose without immediate hindrance of such time as you may have between recitations; all this is a wonderful program! But soon, at some point, authority steps in—and that from a person whom you have but recently met! It may be too much for the warm impulse of youth.

Penalty follows; and student anger, thinly veiled, meets professorial firmness, scarcely concealed! The clash is on; and many of us can recall its excited bitterness. We quickly reclassify our once beloved teacher. He is a tyrant now—a Caesar, a Czar. Our vocabulary breaks down in the effort of telling just what we think of him.

There is an interesting literary illustration of this happening in John Masefield's "Daffodil Fields." The doubtful hero and near-villain is Michael, who seems to regard his mother's apron-strings as mere bonds of domestic slavery. He goes away to school and makes the discovery that teachers have apron-strings too! He is eventually expelled and prowls back to his own home in the midnight darkness to meet the anxious question as to why he is not at the distant college. He announces his expulsion as a kind of triumph by saying—

*And I am glad; for I have had my fill
Of farming by the book with those old fools—
Exhausted talkatives whose blood is still,
Who try to bind a living man with rules.
This fettered kind of life, these laws, these
schools,
These codes, these checks, what are they but
the clogs
Made by collected sheep to mortify the dogs?*

There you have the feeling of more than one student. Collegiate discipline is a mortification. Are we not men and women? All this mood, in various grades and forms, becomes a part of that depreciation which we visit upon our teachers. What we have said about some of them in our angry impulse would add sizzling chapters to the literature of abuse.

The later age that bordered on our own time saw the teacher in the bogs of literature. Charles Dickens came, and in his novels he made many schools and created many teachers. Marton and Strong are there; but so are Bradley Headstone and the terrible Squeers. Mr. Dickens denied that he was guilty of exaggeration. Yet if he were not, some of the English teachers of his time would have been Satan's choices

for district schools in perdition! We will not blame Dickens. The power of caricature has its place, in pedagogical life, as well as in political life. It takes a twenty-mile breeze to drive a vessel at a ten-mile speed! England laughed and wept at the doors of Dickens' schoolrooms and then went forth to begin her educational reform.

III.

But we have no Dickens today. H. G. Wells tried the role somewhat in his *Joan and Peter*; and the work fell flat and has even thus early dropped into forgotten literature.

The maturing individual follows the way of a maturing race. All autobiographies show this; and biographies show it no less. The life of Garfield cannot omit Mark Hopkins. Paul cannot tell his religious experience without paying tribute to Gamaliel. The record of James Whitcomb Riley must give liberal space to Captain Lee O. Harris, the teacher who started a frolicsome boy from cheap and vulgar penny-dreadfuls to the reading of the finer novels with their equally enchanting adventures. Modern biography is often an apotheosis of the teacher. Far back into history, also, one can trace the procession of affectionate tributes to the teacher. Plato said that he was grateful for three things: first, that he was a man and not a beast; second, that he was a Greek, and not a foreigner; third, that he had Socrates as his teacher. Amod the fundamental gratitudes and prides of his life he gave a place to the glorious instructor of his mind and heart. This is the sort of Platonic love in which we may all believe.

Almost naturally appreciation becomes exaltation. If you accused me of idealizing the teaching profession I would not be at pains to deny the charge. I would plead guilty with no sense of guilt. Nor should I even admit that the case of Domsie Jamison in Ian Maclaren's famous story is mere invention. His spirit lives incarnate in many thousands of American teachers

secondary and collegiate. We may go quite farther than that and may well claim that the reality surpasses the fiction. No English novelist has given us an imaginary character equal to Arnold or Rugby. No American novelist has fashioned a teacher equal to Mark Hopkins of Williamstown. God's hand does better work than man's pen. Dickens gave us Dr. Marigold, the traveling auctioneer, who between his spells of noisy salesmanship instructed the blind Sophy and eventually brought her to the city that other teachers might enlarge the range of her inner vision. In Dickens' *American Notes* one can easily see that the imaginary Marigold was far surpassed by the actual Dr. Howe, who opened the world of sights and sounds to Laura Bridgman, the child of darkness and silence.

The greatest educational achievement in the life of one person is not to be found in any novel. It is found rather in a thrilling bit of American history. I think that you will agree that the case of Hellen Keller is the deepest, as well as the most dramatic, accomplishment of individual teaching in the records of the race. Helen Keller knew who was her deliverer. In her lecture on "Happiness" she kept repeating as a grateful refrain, "Love wrought this miracle in me." On the platform with her sat her life-long teacher, Anne Sullivan Macy, still watching every enunciation and capturing all chances for the instruction of her famous pupil. Anne Sullivan had led a child out of the threefold prison of darkness, deafness, and dumbness, until at last the world was met with an ever-increasing liberty and joy. Later, Helen Keller sought to reverse the current and to communicate the gifts of gratitude to her teacher.

We may well thank God that in our schools generally our teachers remain somewhat as embodied ideals. We do not go far astray when we follow them. Yet no hour like this is complete unless at last it admits the Highest. Long since, one came by night to the Master and said, "We know

that thou art a teacher." Even so, the mightiest Teacher that ever lived! The holiest application that we can possibly give to the Apostle's suggestive call is to see to it that we, being taught of Christ, may communicate back to Him the deepest and best gifts of our own hearts and lives.

EDWIN HOLT HUGHES

GENETICS AND EVOLUTION

RELATIONSHIPS depend on similarity of appearances and community of origin. When we see two people who look very much alike, our first assumption is that they are related. Similarly, with animals, we can distinguish one kind from another by their anatomical differences, and we can determine the degree of relationship by observing the closeness of their mutual resemblances. Detailed resemblances indicate common descent. However, the more remote the common source, the more distant is the relationship. In human society, our records are limited and lose sight of the source. Thus we consider our acquaintances wholly unrelated even though the fundamental identities of structure and development would force us to recognize relationship.

There is an old saying, "Blood will tell." It helps, at least, in the determination of degree of relationship, for many experiments have been made with the blood of various animals. Precipitation tests, in which the blood of several different apes was added to anti-human serum, have been invaluable in that respect. A marked precipitate was formed in the case of the anthropoid ape, the reaction of the Old and New World monkeys was weak, and lower mammals showed no reaction at all. This tells us that man is closely related to anthropoid apes, more distantly related to Old and New World monkeys, and not at all to the lower mammals. Thus, we cannot believe that we were put on this earth, a class all to ourselves with independent origin, but