

# Psychologists Look for Honest Children

*Psychology*

By EMILY C. DAVIS

Diogenes, looking for an honest man, has come back to earth.

The modern Diogenes is a scientist. In place of the old Greek philosopher's lantern, with which he peered into doorways seeking to reveal a truly upright Greek, the modern scientist depends on carefully prepared tests of character. The modern quest for honesty is being carried on, not by roaming the highways and byways of America, but by measuring with a scientific yardstick the characters of America's growing generation of citizens.

Character is perhaps one of the most elusive things that science has ever tried to apply a measuring stick to. But the modern psychologist believes that he can succeed. Does living in a "better home" make Johnny a better boy? The psychologist sets about the task of measuring the effect of the home on character. Do sermons make people deal fairly with their fellows? There is something else to be measured. Are some folks born good and some bad? They can be measured to find out whether they are getting better or worse.

Under a grant furnished by the Institute of Social and Religious Research, investigators at Teachers' College, Columbia University, are carrying on just this type of research into the nature of character. The research is called the Character Education Inquiry. The investigators are Dr. Hugh Hartshorne, of Teachers' College, and Dr. Mark A. May, of Yale.

During the past four years 12,000 children have been measured to find out where and why deception occurs and to aid the scientists in developing a scientific test of character. The results of the character inquiry are to be published in a series of volumes, the first of which, on deception, has just appeared.

What is it all for? Well, for one thing honesty is important in this world where men have to trust one another. Old Diogenes, who lived in a tub, showed a keen sense of values when he dedicated his spare time to a quest for an honest man, a man of straight dealing and clear thinking. The old philosopher wanted to show the Greeks what a fine rare figure a thoroughly honest man is. When you consider the amount of bribery, petty graft, and double crossing in

business, the political scandals and social intrigues, with which everyday life is honeycombed today, just as in ancient Athens and Corinth, it becomes rather obvious that home-made, haphazard methods of teaching honesty to children will always bear an alarming quantity of weird fruit.

For another thing, it is pointed out that schools and churches are now having to deal on an enormous scale with children's character problems that were once handled by fathers and mothers at home. And where the head of a family could experiment with methods of instilling honesty in his three or four children without endangering the nation, there is an awe inspiring responsibility and real danger in trying out unscientific and possibly harmful programs of moral training on the children of a whole city.

So, science has stepped in, believing that the children who do not get along with others, who are sneaky, and selfish, and undependable, can only be set on the right track to successful living through scientific understanding of how and why they get that way.

No one is honest or dishonest by nature, it has been shown. Honest and dishonest acts arise out of specific situations. Most children will cheat in certain situations and not in others. A boy who regularly cheats at arithmetic may never think of cheating in spelling lessons. Deception is the result of a conflict between the individual and his environment. It is an age-old method of getting results in time of trouble.

Three-year-old Jimmy, who wants a piece of forbidden chocolate, says: "Daddy, don't look." While Daddy plays the game, with his fingers over his eyes, Jimmy gets the candy, and then completes the deception by looking innocent with exactly the same expression of unconcern as the cat that has gobbled up the goldfish.

If young Jimmy's strategy is successful in meeting situations where he is thwarted, he tries this underground method of getting his own way again, and again. If deception is frowned upon at home, he becomes wary of using it where there is real danger of being caught. But if the boys on the block and the boys at school approve of cheating and lying, as they do in many a classroom where honesty is bad form, then the child contracts the fixed habit of using deception in

certain situations as a matter of course.

In making one test of deception the examiner stands before a class room full of children.

"Here is a sheet of paper with ten circles on it," he says. "I want you to shut your eyes and try to make a pencil dot in the center of each circle."

The children poise their pencils, squeeze their eyes tight shut.

But they find that getting dots into circles with eyes shut is hard. It is even harder than pinning the tail on the donkey at parties. The psychologist is not looking. Will the children peep? A very large proportion will. And so will a very large proportion of adults, for that matter, if faced by this particular problem of putting dots into circles and left casually to their own standards of honesty.

To the psychologist who looks over the papers afterward, their cheating is clearly revealed by the accuracy with which the marks are placed in the circle.

In another experiment of honesty the children were given a set of questions to answer and then were allowed to score their own papers by using an answer sheet. Another day a similar test was given, but this time the children had no chance to improve their records by use of an answer sheet. The difference between what the child could do without the answer key and what he did when cheating was possible indicated the amount of cheating that took place.

More than twenty such tests of honest conduct have been used in testing school children in a number of cities in the past four years.

Deception runs in families, in about the same way as intelligence runs in families, the investigations reveal. It has not been proved that deception is inherited, the psychologists hasten to explain. But temperamental make-up and the home conditions of the family are likely to work together to produce a family level of honesty. Parents who lie to the servants set an example of deceit that the children copy expertly. Parents who are over-severe, and parents who smugly believe that their children never lie or deceive in any circumstances provide a home setting where the children soon learn that deception produces the most satisfactory results without any fuss. (Turn to next page)

## Modern Diogenes—*Continued*

Children in poverty-stricken homes and children in broken families are more likely to be driven to dishonest practices than children in comfortable well-organized households. In poor homes there is a constant struggle for existence, and it is more difficult for the children to stick to honest dealing when they can see that cheating, lying, and stealing would help them out of many a hard place. In better homes, ideals of honesty are more likely to be absorbed easily along with good manners and a liking for good books, music, and pictures. Though, obviously, there are many exceptions in both rich and poor homes.

A surprising connection between the occupation of a father and the honesty of his children has been found. Children of unskilled laborers cheated more than was to be expected from children of their intelligence. Children of business men and artisans and children of professional men cheated less than would be expected, the professional man's children standing out prominently as the least deceptive group of all. Bootlegger's children were found to have a noticeably low level in honesty.

"It is not surprising that children of one level of occupation are somewhat alike in their behavior," say the authors. "There are the traditions, codes, social contacts, standards of dress and success which are the direct consequence of being the son of a plumber rather than the son of a street cleaner, the child of a college professor rather than of a truck driver. The occupation of the father colors the life of the child, creating his tastes and attitudes, not only by what his father says about his work, but what the father's friends of the same occupation say about it, what the neighbors say about it, what the teacher, storekeeper, bank teller, newspapers and motion pictures say about it.

"In a similar way cultural influences associated with nationality, race, and religion operate directly upon the child. The old codes and attitudes are kept alive by the church, newspapers, books, and neighborly gossip.

"In one population of varied nationalities, out of all the tests the Americans cheated on the average once in every three opportunities, Jewish children once in every four, and other nationalities once in three. But in a test which the children worked on at home, the same Jewish children cheated more than the Americans, and other races cheated less."

Important as home and family are in shaping a child's attitude toward fair play, the school is still more of an influence. Deception spreads through certain gangs of children and through certain schools like a contagious disease of character. In some classes not one child in the room cheated on certain of the conduct tests. In other classes every child seized the opportunity to cheat on the same tests.

In one of the tests given by the psychologists each child was shown a sheet of paper covered with rows of letters and told to underline as many A's as possible before time was called. The children took this test twice, and were told that these were practice tests of their speed. Then they took the "real test of speed" using a third sheet of letters. This time they scored their own speed, counting how many of the A's they had marked in the given time. With no one watching, it was a simple matter to mark a few more A's while checking up on the score. But the psychologist was not fooled. As a matter of fact, an individual does about as well on the first trial at this sort of work as he would do on the third or tenth trial. A child whose self-scored paper showed 14 more A's underlined than his practice sheets showed, has certainly been juggling his score.

In one junior high school class of 31 pupils, there were exactly 31 pupils who cheated on this test. In a third grade, too, every child cheated. In a private school for boys cheating on this same speed test ranged from no cheating whatever in the fourth and fifth grades to 47 per cent. in the ninth grade and 39 per cent. in the tenth-grade class.

What pupils learn about deception in one classroom, they are apt to carry along with them into the next grade, the investigators found. The same group of children given honesty tests from one year to the next is likely to keep to its own distinctive level of honesty, or lack of it.

The individual teacher does not play so large a part as might be expected in altering the tendencies of the children who spend a year in her room, not so large a part at any rate as the children play in shaping the characters of one another. Still, it is found that a teacher whose room has a friendly atmosphere of cooperation may noticeably raise the level of honesty among the children, judging by the higher degree of honesty shown

by children in certain school rooms from year to year.

One striking fact shown by the tests is that children most frequently take to cheating in order to make good marks. The pressure of getting good grades at almost any cost is a powerful motive among children of the grammar grades and high schools. In one part of the investigation, children were asked whether they cheated on certain tests, and if so, why. Two-thirds of the children who admitted cheating said that they did it in order to make a good grade on the work.

The experimenters say that they did not study young children to find out whether cheating begins in kindergarten, where no marks are given. Further investigation will be necessary to discover just when a pupil first resorts to subterfuge to keep up with the parade—or ahead of it, according to his ambition.

"Judging from what little work on deception we have done in the third grade," the psychologists report, "there is a process of experimentation going on there, similar to that of the still younger child at home. Teacher and pupil are, so to speak, maneuvering for position and trying one another out. Practices which later come to be clearly defined as deceptive are appearing, partly because of misunderstanding of the teacher's directions and partly in a kind of struggle for existence.

"It is possible that these acts, which seem to adults to be unfair, are not at first regarded in that light by the pupils, but are rather taken for granted without moral reflection. There are some children, of course, who never cheat, either because it does not occur to them to do so, or because the acts involved are distasteful to them for some reason. By the time a child reaches grade five the practice seems to be fairly established and does not change materially through grade twelve."

Outside of school room and home the young citizen who is building up his character experiences comes into contact with still other people and other situations that he must meet honestly or crookedly. If his best friends lie to each other or cheat at games, he soon adopts their standard. This was shown by asking children to state who their best friends were. When the ratings of friends on the honesty tests were compared, a striking resemblance in cheating, or lack of it, was shown. (*Turn to page 381*)

# Plant Cells Emit Ultra-Violet Rays

*Botany-Physics*

The latest sensation in German scientific circles is the discovery that the apex of certain rapidly growing vegetable and animal tissues emit some sort of invisible radiation which has the power to stimulate the growth of living matter with which it is not in contact. When this was first announced in 1924 by Prof. Alexander Gurwitsch of Moscow it was received with considerable skepticism, but now it has been confirmed by German investigators who are eagerly prospecting the new field of research in various directions.

Prof. Gurwitsch found that if the tip of one of the rootlets of an onion or turnip was fixed so as to point at right angles to the side of another root, though as much as a quarter of an inch away, the cells in the side nearest the tip would multiply more rapidly than elsewhere, and so bend the root away. That this influence was not due to the emission of some

gaseous emanation from the root tip was proved by the interposition of a thin sheet between the two roots. Glass and gelatin sheets stopped the transmission of the growth stimulation power, but quartz did not. This is characteristic of ultra-violet rays and Gurwitsch concludes that the radiation from the root tips has a wavelength of 180-200 millimicrons, which would place it among the ultra-violet rays of high frequency.

The German botanist, N. Wagner, has repeated these experiments with bean and onion roots and measured the effect by counting under a microscope the number of new cells produced in the roots acted upon. The increase is as high as 70 per cent. in some cases. Old cells that have ceased growing show the greatest relative increase.

The German bacteriologist, M. A. Baron, has found that the radiation from onion roots will likewise accel-

erate the growth of anthrax bacillus and other bacteria. The growing tip of toadstools gives off these same growth-generating (mitogenetic) rays.

The Siemens Electrical Company has taken up the question and Doctors Hauser and Vahle, working in these laboratories, report that certain growing animal tissue, such as cancer, emit such rays.

These results, if confirmed, will radically revolutionize present theories of life and growth. It has hitherto been assumed that the impulse to cell subdivision was somehow due to the direct contact of certain chemical substances transmitted through the tissues, but it now seems that an energy agency is active in vital processes, an immaterial radiation of the nature of light but of too high a frequency to be detected by our eyes.

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## Modern Diogenes—Continued

Then there are the organizations that attempt, among other work, to teach ideals of honest behavior. Does urging children to play the game fairly, to emulate George Washington's example of honesty about chopping down cherry trees, really get results when the child faces some small crisis in his career? The Character Education Inquiry wanted to know, because millions of dollars are spent on teaching ideals to children without much attempt to check up on results.

"We found in several schools a system of interesting school children in the achievement of virtues by practising them," the psychologists state. "Each child was expected to keep a daily record of certain kinds of good deeds, among which was truth telling. He was rewarded for a good record by being advanced in the organization from rank to rank.

"In one school, where about half the boys had joined, the members of the organization cheated more on every test except the athletic contest. Furthermore, the higher the rank achieved, the greater the deception.

"Girls under the influence of this system cheated less than girls who did not have it. Yet the longer they were in the organization, and the higher they rose in rank, the more they cheated. We can only conclude

that it is not the system which is responsible for greater honesty among these girls. It is not clear whether the organization happens to advance those children most proficient in subterfuge, or whether it makes them into more facile liars."

Children attending Protestant Sunday schools and Hebrew religious schools were slightly less deceptive as a group than those who did not attend, but the difference was pronounced negligible. Apparently, the investigators conclude, these religious schools do not meet this particular problem at the present time. A typical organization for young people was also studied, with the discovery that members differed very little from non-members in honesty. "But it must at once be added," the investigators say, "that in other ways these various religious and character building organizations may be having a vast influence for good."

In one experiment the psychologists tried to find out whether teaching of ideals does carry over into a child's behavior when the child really links up the lesson with his own conduct. The experimenter stepped up to the blackboard and wrote, "Honesty is the best policy" just before giving a test. He left the room while the children scored their own papers, so that cheating was easy. Later, in

another experiment, he wrote on the board, "God loves an honest man."

In this series of tests, the children who had religious training grew progressively more honest as the idea of honesty and then the idea of God was introduced. Children who did not attend religious schools got progressively less honest in the same circumstances.

Introducing these ideas straight into a situation where honesty was a live problem plainly changed the children's behavior to a noticeable degree. From this experiment, it is suggested that "the differences in behavior are large enough to warrant the feeling that in certain forms of religious training there are potential values that are far from being realized in the ordinary life of the children concerned."

To teach young children to meet their problems fair and square, it is proposed that adults should take the time to manage situations so that the child will not feel the need to deceive, and will not think of deception as desirable. Then, as the child builds up behavior habits in which he plays an honest part, he may gradually gain an intelligent grasp on the social significance of honor, and a really usable ideal of honesty.

The twenty-odd tests of honest conduct used in (*Turn to next page*)

# The Fall of Man

Evolution

KIRTLEY F. MATHER in *Old Mother Earth* (Harvard Univ. Press):

Partaking of the fruit of the tree of knowledge of good and evil is a very real experience, both for each individual and for the human race as a whole. The patriarchs of Palestine had observed that one of the characteristics which distinguish man from other animals is his sense of moral law. And they were correct. Far back before the dawn of recorded human history certain ancestors of ours first said it would be right to do this thing, wrong to do that. A consciousness of moral law had emerged from the evolutionary processes which Old Mother Earth was directing. Man had partaken of the fruit of the tree of knowledge of good and evil. And more than likely it *was* a woman who first considered the moral consequences of human deeds, and then taught a man what

she herself had learned. It was a real achievement, a major upward step in the progress of life, something of which we may well be proud and something which should clearly be distinguished from the so-called "fall of man." Not until human beings had attained a knowledge of good and evil could they be held morally responsible for their acts. Sin in the theological sense consists of wilfully doing what one knows to be wrong. Man could not "fall" until he had climbed; he should be blamed, not for climbing, but for the subsequent falling.

The parable continues; man discovers that he is naked. Anthropologists tell us that primitive folk did not at first attire themselves in clothing through any sense of modesty. Doubtless they are right. My own observations among uncivilized Indians east of the Bolivian Andes led me

several years ago to the conclusion that clothing there was designed as a protection against mosquitoes, midges, and gnats. Actually, modesty played no part in the determining of costume. Nevertheless, the adorning or covering of the body is a direct by-product of the consciousness of self, another characteristic which sets man apart from the animals, which display no indication of being self-conscious. Doubtless the emergence of self-consciousness from the brute consciousness of the lower animals must have been more or less contemporaneous with the dawning recognition of moral law.

Similarly the statement concerning the origin of man, set as it is in the midst of obvious figures of speech, should be considered as allegory rather than as science. Man is a creature of mixed motives and conflicting natures. At times he permits his animal instincts to rule his conduct; he exists upon a dead level with the beasts; he proves that he is of the earth, earthy. At other times he lifts his face toward the stars; he yearns for an understanding of himself and of his environment; he resolves to live a more useful life tomorrow than he has been living today; he is of the heavenly, divine. How better could this important truth be crystallized in the Hebrew annals than by describing man as made of the dust of the ground and the breath of life! To ascribe to that statement the idea that man was literally manufactured from mud is a libel upon Genesis. It is equivalent to maligning modern science with the charge that evolution means that man is a descendant from a monkey.

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The giraffe's chief weapons are his heels.

The grizzly bear is the world's largest carnivorous animal.

The U. S. Coast Guard was instrumental in saving 3,317 lives last year.

Brightly colored clothes tend to make an individual look larger.

The Library of Congress at Washington has one million maps in its files.

For the first time in eight years the British birthrate shows an increase.

## Modern Diogenes—Continued

the four years of the investigation are a first definite step towards finding out the tendencies in children and predicting success in living. These tests are not varied enough to show what a person would do in all kinds of situations where there is a chance to lie, cheat, or steal. But anyone who takes twenty of the tests is practically measured, the investigators declare. If a pupil cheats ten times in twenty tests, the chances are that he will cheat once in every two opportunities in all similar situations—until something happens to change his conduct.

Where the child or the grown person resorts to trickery, this is always a symptom that the psychologist reads as a sign of bad adjustment to life. Back of the dishonesty are the underlying causes that need looking into and remedying. The great mass of facts growing out of the Character Education Inquiry has shown that poverty, ignorance, stupidity, broken homes, all pull down the nation's standards of honesty. When still more is understood about causes of deceit, the task of controlling and reorganizing the behavior of children on scientific principles can be begun. It is a little like the task of the chemist who analyzes rubber or camphor in his laboratory and then proceeds to put together all the proper ingredients to make the

same thing in a test tube. Two thousand years after Diogenes, science has only begun in earnest to discover the ingredients that go into the making of an honest man.

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