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# ***More Firepower***

**for**

# **Health Education**

by

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*Chief, Division Physical Education and Health Activities*

**Bulletin 1945 No. 2**

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## FOREWORD

THE INVESTIGATOR discovers knowledge. The textbook writer makes knowledge available in language understandable to teacher and pupil. The teacher guides the shaping of lives in accord with this knowledge.

The progress of man depends largely upon the close cooperation of this trio. Although each must know and respect facts, what they do with them differs greatly. The research scientist at one end of this team must extract facts from life, unemotionally and with complete detachment, whereas at the other end, the teacher must help these facts to become translated into the "flesh and blood" of emotionally charged growing boys and girls. Many of our best scientists are poor teachers even as many of our best teachers can lay little claim to reputation as scientists.

Methods of the scientist are better understood than are those of the teacher. Consequently they have weighed heavily in what we have taught our teachers. *More Firepower for Health Education* prepared especially for high school teachers is an effort toward balancing the scales. It represents a point of view which recognizes feeling as equal to knowledge in the learning process and the author's purpose is to help teachers become more skillful in working with feelings to the end that more knowledge will be translated into ways of living.

BESS GOODYKOONTZ,  
*Assistant U. S. Commissioner of Education.*

## ACKNOWLEDGMENT

IN THE PREPARATION of this bulletin the writer has enjoyed the cooperation of thousands of high-school and junior college students and scores of their teachers. By writing it to serve secondary teachers, and through them young Americans, the author hopes to repay with improved health education of succeeding teen-age generations a portion of his debt to the present generation of pupils and teachers. This he knows is as they would have it.

Special acknowledgment is due the students of health education who, since 1933 in regular and summer sessions on five campuses, have shared their wisdom and experience with the author; the pupils, teachers, and school officials of Cullman County, Ala., and of Cleveland, Ohio, who made themselves and their classes available for consultation, observation, and experimentation; to the art supervisor of the Cleveland Board of Education and the art teacher at West Tech High School for assistance in finding Bernice Kochan and Nick Livaich, the Cleveland high-school seniors whose special talents and intelligent cooperation give the illustrations claim to artistry and contemporaneity.

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ARTHUR H STEINHAUS.

# MORE FIREPOWER FOR HEALTH EDUCATION

## WHAT IT'S ALL ABOUT

FEELING IS CONTINUOUS in man. His thinking is also nearly continuous. But no logical connection need exist between the feeling and the thought simultaneously experienced by him. Sweltering temperatures make him feel uncomfortable because his thoughts on the thermometer or on an anatomy text. Feelings of pain logically accompany thoughts of the match that burned him; but illogically a stomach disorder supplies a feeling of nausea to accompany thoughts of the site of his illness. So also feelings of boredom or fear of teacher may accompany thoughts of algebra. Fear of losing a soldier-father or sweetheart may be revived with the learning of a new war song. Pleasant feelings of importance and "belonging" may be aroused while thoughts attend to signal practice or to the completion of plans for a beneficent civic enterprise. Whether logically related or not, the thoughts and feelings simultaneously experienced tend to remain psychologically connected. Sight of the match will recall the burn; algebra, the fear of boredom; football, the thrill of being important. Sometimes the feeling will expedite, sometimes it will hinder the purpose of the associated thought.

Whereas teachers have generally and rightly given most meticulous attention to the ideas or thoughts that should occupy the minds of pupils, they have often left the feeling part of pupil experiences greatly to chance. They have in this sense "educated" only half the person.

This bulletin is committed to the thesis that the success of any educative experience varies as thoughts are or are not accompanied by appropriate feelings; that education must ever be alert to both of these happenings; and that the teacher can influence the feeling phase of an experience even as he can the cognitive phase.

In limiting its efforts to a demonstration of this thesis in the area of health, this bulletin is neither a course outline nor a listing of what should be taught. It is an attempt to illustrate for secondary school teachers methods that may help to close the gap that often exists between the health knowledge and the health behavior of individuals. Logically included in this health behavior of individuals are exercise and recreational activities, safety practices, and the many other actions

that enhance or jeopardize the protection, development, and maintenance of positive, robust health.

Because this bulletin attempts to give practical help on practical problems, it cannot represent simultaneously divergent theories in education. Of necessity it follows one synthesis of ideas; but in so doing does not imply that there is no other synthesis of value. Effort is made throughout the publication to *explain* and *apply* theory, not to formulate it. It is important for health education that other theories be similarly elucidated and translated into practical suggestions for those who carry the burdens of teaching.

This publication makes no pretense to completeness in the field of methods. It merely illustrates and discusses ways of associating feelings with knowledge that point to a course of action. It ~~lays~~ claim to no new ways of motivating. It merely analyzes and illustrates ways that have long been employed by man in literature and in education, and before him by Mother Nature, to move man and animals to action.

Mother Nature measures her success by the extent to which she motivates man and animal to do that which is good for the individual and species. Man sometimes measures his success by the extent to which he moves his fellows toward his own selfish ends. *Educators are persons who have elected to join their efforts with Mother Nature.*

It is assumed that where the right way of thinking and acting is scientifically based and may improve health, education has a responsibility for seeing this way translated into the thoughts and habits of people. This must be accomplished with the minimum of external control that is consistent with human safety and by ways that will enhance, not retard, the growth of self-direction under an internally operating sense of values.

To get ready to do in anticipation of doing, to save the more costly ways of overt trial and error, there has evolved the ability to form attitudes. An attitude may be defined as an idea charged with power. Touched off by an adequate stimulus from the environment, it discharges into action.

Ideas come to us directly or indirectly from the outside world. Basic feelings or emotions that may supply the power to convert ideas into attitudes are already within us. The chance that an idea will culminate in action depends on the strength and nature of its associated feeling or "firepower" compared with the firepower enjoyed by opponent ideas simultaneously stimulated. This is the law of prepotency.

The brain of man is capable of fastening any feeling of which its possessor is capable to any idea, right or wrong, that he can encompass. The teacher who conceives his task to include the influencing of behavior will do what he can to assure for ideas representing the best

forms of action the company of strong feelings that are pleasing in order to ensure repetition of these actions. For ideas defining undesirable forms of action he may seek the association of unpleasant feelings which, in wanting to be avoided, will inhibit such ideas from becoming actions.

This association of feeling with ideas goes on continually whether or not the teacher gives attention to it. *It is man acting as a whole.* The teacher who ignores this ever-present happening stakes the success of his teaching too much on chance. Too often unhappy feelings of boredom or failure may then creep in to handicap his efforts.

There is here no plea for artificial rewards and punishments to be dangled before recognition-hungry pupils. There is rather an attempt to show how feelings that reward or punish become connected with ideas that define a course of action, irrespective of whether these feelings are artificial or natural, logical or illogical, extrinsic or intrinsic to the situations in question. The wise teacher will, in each instance, seek to facilitate the most appropriate and effective feeling. A burning match needs little teacher-help to assure a logical connection of pain with improper handling of matches. A diseased tonsil, by contrast, often remains "inarticulate" until irreparable damage has been done. In this instance it may take considerable teacher-help to build up enough motivating force, be it intrinsic or extrinsic, to secure a course of action that will forestall the disaster.

There is here certainly no recommendation or set of directions for making human beings into externally controlled robots. This is far from even being implied. But there is recognition that man's actions are driven or motivated by feelings. Being a social animal, it follows that man is sensitive to the "rewards and punishments" that his teachers and others are in position to impose from the outside. Being also an intellectual animal, man stores and organizes within himself the memories of such experiences. This inner organization acquires in its own right the power to associate feelings of joy or pain, reward or punishment with newly presented ideas or courses of action. This is the power to evaluate. The inner synthesis of experiences is of the nature of a self-perpetuating board of directors. Each new idea or course of action is evaluated by those already present and correspondingly tagged with joy or pain feelings. So initiated it remains to participate in future actions of the board; its voice, influence, and vote colored by the tag it bears.

But usually new courses of action are presented to the individual in company with some pleasing or painful feeling simultaneously aroused in him by influences working also from the outside. These feelings may reinforce, weaken, or even be strong enough to reverse the feeling balance previously represented in relation to this course of action. Thus a man's ideals, his conscience, or his sense of values in

regard to any action, i.e., the attitudes that determine his habitual or characteristic response, really his character, are developed and also changed. In this sense man may be said to be driven both from within and without, and that which today drives from without may tomorrow be a part of that which drives from within.

The teacher is obviously a part of the pupils' outside world. This defines his opportunity as well as his method of procedure for helping to change the attitudes and consequently the actions of people. The aim of this bulletin is to help him to understand better his role and to offer suggestions that may assist him more effectively to play his part in the cause of health education.

### EDUCATING IRRATIONAL MAN

Education has sometimes proceeded on the assumption that man is essentially a rational animal, that if he were given opportunity to ascertain the facts he would espouse them and guide his life accordingly. Repetition, the primary law of learning, brought the hope that if only there were enough time for repeated exposure to facts all would be well. This made education more time-consuming. Sometimes the facts were remembered. But still man was not rational. His behavior did not necessarily correspond with the facts. How many people, for instance, changed their coffee or caffein-bearing-carbonated-beverage habits when they read press notices of the 1944 American Medical Association meetings in which Drs. Roth, Ivy, and Atkinson of Northwestern University's Medical School reported that these drinks, according to their research, contribute to the development of stomach ulcers in susceptible persons?

To say that man is not rational is not to say that his learning proceeds without reference to definite and understandable laws. To say that he does not regulate his life primarily in accord with facts and reason is not to say that his manner of acting is unpredictable or incomprehensible. To say that education has sometimes failed because it has assumed that man was rational is not to say that irrational man cannot be educated.

The educator who undertakes to help people to form and reform habits of living cannot content himself with facts and their dissemination. He must dig deeply into the mechanism of man to discover the mainsprings that drive his actions, to learn what really makes him "tick." Understanding this, he may influence the harnessing of these driving forces to new action patterns. When he is able to do this, he is more than a teacher of facts. He now guides the development of attitudes, of readiness to act.

In an area entirely new to the learner, habit formation is direct. Where, however, much learning has already occurred by chance and happenstance, there education may be complicated, even impeded, by

the solid structure of pre-existent, less desirable habits. This situation is regularly faced by the health educator. Consequently he must attend to the inhibition and redirection of already existent lesser ways as well as help in the formation of better ways of acting.

### THE LESSON OF THE BRAINGLESS DOG



In 1890 Professor Goltz of Strassburg succeeded in removing the cerebral hemispheres from a number of healthy dogs. When even 18 months after the operation such a "brainless" dog was given meat made bitter with quinine, he always rejected it. No amount of inducement or scolding availed to change this instinctive, protective reaction. One day the professor threw a piece of the same meat to his house dog. The dog caught it eagerly. On tasting it, he stopped short in astonishment, pulled a wry face, then swallowed the meat. Other comparisons of brainless and normal dogs are equally revealing of the brain's function in education. Stepping on the brainless dog's foot always caused him to growl and bite at the offending boot, whereas the house dog would merely yelp a bit. The brainless dog always chewed his food thoroughly before swallowing the same, no matter how much was offered him, no matter what other dogs were around. Eating was hurried only when extreme hunger followed long withholding of food. The house dog acted likewise when alone and with but a single piece of meat to engage his attention. When, however, another dog was present or when a second piece was tendered him, he would gorge the first as though to assure getting all for himself. The brainless dog never showed signs of pleasure or satisfaction. He did exhibit anger and pain.

In each of these instances it would seem on the surface, at least, that the brainless dog acted more "sensibly" in ways better suited to protect him from harm and discomfort. In fact, the brainless dog reacted directly in accord with his immediate feelings, whereas the normal house dog was able to associate previously experienced feelings of pleasure and satisfaction with meat and master to overcome the distaste of bitter; previously experienced pain of discipline to inhibit the impulsive biting at the offending boot; and previously experienced displeasure at losing a piece of meat to overcome the sensory satisfaction of deliberate munching.

This ability of the brain to connect any feeling of pleasure or pain with any object, idea, or course of conduct holds both the hopes and fears of our civilization. It is the physiologic charter licensing equally the practices of those who would lift humanity and those who would degrade her; of those who strive to alter behavior for the good of man and those who would turn it consciously or not, to suit their selfish ends. It accounts for self-control and the ability to stand by in

spite of pain; it accounts for refinement of taste and explains its perversion.

The health educator finds illustrations on every hand.

The taste of strong alcoholic drink is sufficiently irritating to mouth and tongue that its immediate rejection is assured in the brainless animal and in "uneducated" man. When, however, this substance is connected by the brain with the joys of good fellowship, with the expansive thrill of royal entertaining, with the satisfaction of belonging to the smart set, and with the relief of escape from troublesome reality, it becomes acceptable as does bitter meat to the house dog.

The anticipation of earlier recovery, the promise of escape from greater pain, plus the fear of more dire consequences, can make the necessary pain of an antiseptic or even an operation acceptable.

The anticipated pleasures of returning to home and loved ones, the feeling of belonging to a great and noble cause, the fear of being a coward, and the hatred of enemy, all in varying degree, can be connected by the brain to help "pull" and "push" a soldier into deadly combat.

### BIOGRAPHY OF AN ATTITUDE

Even before Emma was a year old she had an experience with heat. Her mother said, "Don't touch that iron, it's hot!" But Emma touched it and was burned. The heat and pain made her withdraw sharply. The next time she reached for a hot object her mother said, "Don't touch, it's hot!" Emma's brain hearing the words, automatically revived the feeling of the previous burn. This was enough to start a withdrawal before actual contact. There followed experiences with stoves, radiators, hot-water faucets, and even matches. Sometimes the hot object aroused more, sometimes less of the feeling of pain. Sometimes it caused her to cry. Sometimes it was almost pleasant.

Then on the Fourth of July when she was 5, another child's sparkler set fire to her new organdie dress. Before it was all over Emma spent 5 months in bed with a third-degree burn and complicating infections, with excruciating pains and the discomfort of close confinement.

Thereafter her friends found her nervous and tense at the sight or mention of fire. Year after year she found herself unexplainably angry with her father when he practiced his custom of burning the Christmas tree in an open fireplace. Once when a playground prankster tossed a lighted firecracker at her, she impulsively threw herself out of the swing to suffer bruised face and hands.

At 13 Emma took up scouting. She loved the program and formed the closest friendships with scout leader and troop mates. The out-

door program suited her to a T and a part of this was the safe building and control of campfires. Throughout a long distinguished scouting career, marked with increasing responsibilities, she was most meticulous in handling campfires. Always she found it imperative to stay until the last ember was extinguished, sometimes to the disgust of casual fellow picnickers who in turn seemed careless to her. Scores of younger girls learned from her to be most careful with fire.

*An attitude is an idea connected with emotion or feeling.*—This is the biography of the fire attitude in the life of Emma. The words and images that formed her growing idea of heat and fire became connected sometimes by accident, sometimes by direction with various feelings and emotions to form her attitude toward fire. Each change in either the idea or the feeling component of her attitude modified the direction or the force of her action when next she experienced fire or heat. The childhood, simple, pull-back attitude to hot things was suddenly overloaded with the emotion of fear and pain in the Fourth of July accident. This accounted for her subsequent irrationally violent reactions to even slight stimuli involving fire. Then, accented by adolescence came the new flood of scouting joys. These attached themselves to all scouting experiences, including campfires. There came also more knowledge of fire and its control. The fire attitude emerged with refined idea and modulated feeling tone to make her a model scout in handling and in teaching others to handle fire safely.

These and many other reasonable and unreasonable reactions to fire, were made without her knowing why. Only in her senior year in college did she acquire full insight into her reactions. Then also was she able to overcome the annoying tensions that sometimes still possessed her when unexpectedly confronted by fire.

### DEFINITION OF ATTITUDES

The mechanism of attitude formation illustrated in this story is summarized in the following quotation taken from John E. Anderson.<sup>1</sup>

As a result of his contacts with life in all its phases, the child builds up a wide variety of ideals, prejudices, beliefs, etc. These can be grouped under the general term, *attitudes*, and defined as systems of ideas or symbolic patterns which have become weighted to a greater or less degree with emotional content. There is a continuum running from the skills and knowledges that are completely externalized and carry a minimum of emotional tone to those patterns of behavior and associated symbolic systems that are almost completely internalized and carry such heavy emotional weight that even very slight stimulation will set off a marked reaction. These attitude systems are intimately related to values and goals and to the symbols which function as carriers or stereotypes for values or goals. Attitudes vary markedly from individual to individual in

<sup>1</sup>The Psychology of Learning. Forty-first Yearbook of the National Society for the Study of Education, Part II, p. 333. Chicago: Distributed by the Department of Education, University of Chicago, 1942.

accordance with the particular experiences each has had in meeting situations and in coming under the influences of his associates and contemporaries. The systems of values, which, with their associated stereotypes, exist in every social group, place each individual under pressure to conform. Often individual attitudes come into direct conflict with group values; sometimes within a single individual the valuations imposed by different groups come into conflict.....It is important for the teacher to recognize that, as a by-product, every form of learning develops a substantial series of attitudes, and that this by-product is often of much more significance for adjustment than the primary skill being taught the individual.

### PICTURES OF ATTITUDES

Let us visualize an attitude with the aid of a rocket analogy. The shell and flanges of the rocket that give it structure and guide its flight correspond to the idea component of an attitude. The gunpowder or the fuel that propels the rocket corresponds to the feeling component of the attitude.

To facilitate the analogy, let us assume that the gunpowder may be placed at either or both ends of the rocket and correspondingly drive it with varying force forward, backward, or to a standstill. The effectiveness of the rocket will depend for its accuracy and direction on shell and flanges and for its force on the gunpowder placed in it. Similarly the effectiveness of an attitude depends for accuracy on its idea component and for its force on the nature and amount of feeling that has become attached to it.

The following sketches indicate some possible combinations of these elements in our imaginary rockets and suggest their counterparts in human behavior.



To illustrate, let us assume that Emma had heard the word "hot" used with many objects and had been told not to touch these objects before she had ever been burned by any of them. Her mental experience in this instance would be one of ideas empty of feeling as pictured in rocket #2. If her first touching of a hot object had led to a severe burn, her "hot" attitude would be as pictured in rocket #4. If now there followed also pleasing experiences as with a hot stove to warm her on a cold day, rocket #3 would best picture her attitude toward hot objects. Of course the Fourth of July incident produced a rocket #5 state of affairs. The pleasing experiences and more ex-

pert knowledge brought by scouting again brought a more balanced attitude as pictured by rocket #3. To account for the final resolution of her residual tensions relative to fire, we may need to assume that she consciously separated out from her generalized fire attitude, a special "Fourth of July incident" attitude with an identity of its own which will henceforth not be stimulated by ordinary fire situations. Perhaps as we grow up and become somewhat "analytical" we regularly should form a number of distinct attitudes toward fire. It is a revealing experience to ask oneself "What feelings have I connected with such words or ideas as communists, love, jungle, hell, democracy, yellow, whiskey, venereal disease, and toothache?" It is even more revealing to discover how these feelings became attached to the ideas.

### ATTITUDE MAKING AND REMAKING

John grew up detesting all kinds of salads. Neither his sister's attempts to praise their nutritive value nor his mother's insistence that he learn to eat everything served him had any effect. Then John went to college and came to enjoy Sunday evening suppers at sorority houses. Often these snacks revolved around a salad bowl. On returning home he surprised his mother by insisting she serve more salads.

In any situation we react not to one stimulus but to many, in fact to all that come within our sensory horizon. Consciously or unconsciously we react to each in ways determined by our nature and our previous experiences. Added together or integrated they are the new response and somehow they remain connected to help determine future behavior. John's customary reaction to salads became connected at sorority houses with John's reactions of pleasure in the presence of coeds. This added pleasure was enough to change his attitude toward salads. Perhaps this is oversimplification. No doubt the pleasing feeling of being acceptable, the embarrassment of standing out as different, the fear of ridicule, contributed each its plus or minus to the final balance of feeling in favor of salads.

Bill's father and mother placed their disapproval on his smoking. The taste and nausea of the first cigarette added to the negative feeling. Yet his fear of ridicule and the contemplated joys of being one of the gang added up to throw the balance in favor of the habit.

Scores of similar instances will come to everyone's mind. Ideas that form in our minds are perpetually being loaded or connected with feelings and emotions. Some of these increase the readiness of the ideas to become actions. Others tend to inhibit their translation into action. This goes on whether or not we attend to it. Can these happenings, which are really the formation of attitudes, be guided and directed or need we be entirely at the mercy of whim and chance?

The writer of this bulletin holds a strong conviction that education must learn to influence the formation of attitude, i.e., the association of feelings with ideas in the learner. Education must make sure that the ideas pointing the right form of behavior become combined in so far as possible, with pleasant feeling or emotion sufficient to insure their becoming actions, and that false ideas and lesser ways of action in like manner become connected with unenjoyable feelings to insure their being inhibited.

Some teachers and parents may resist the idea that this is a responsibility of education. They need to be reminded that the process of attitude formation is constantly at work. Advertising is successful to the extent that it forms attitudes favorable to the advertiser's product. Orations to get votes, demagoguery to incite mobs, preaching to guide lives, and parental words of guidance succeed largely in proportion to their skill in attitude formation. Powerful teachers have done this through the ages. They may have been unaware of it. An understanding of the process will help every teacher to become a better teacher, provided he will also equip himself to use it wisely.

This requires that he—

- (1) Know what gives joy or pleasure and what gives pain to the one he would teach.
- (2) Be authoritatively informed of the facts that should be translated into action.
- (3) Develop the art of guiding the learning experience so that feeling and ideas become appropriately associated in the learner.

Grace, when 4 years old, expressed a sudden dislike for sliced tomatoes at the table one evening. Rather than add further unpleasant feelings to the "tomato idea" by trying to force the issue, her mother removed the tomatoes and changed the subject of conversation. A week later the mother again scheduled tomatoes for the evening meal. When Grace, as was her custom, asked what they were going to have for supper, her mother was prepared. She spoke of great, big, golden-red balls that would adorn the supper table. When finally whole tomatoes appeared, Grace's curiosity and imagination had built up such a pleasant state of readiness to become attached to the tomato idea that thereafter tomatoes in any form continued to be most acceptable.

When a fourth-grade teacher found many of her pupils violently disliking whole-wheat bread she brought whole-wheat grain to the classroom. The pupils ground it in a small coffee grinder. Interest

and excitement increased as they helped to bake the meal into whole-wheat muffins. When these emerged from the oven near the end of the school day, the youngsters were eager to sample their own handiwork. All but one now stoutly claimed liking whole wheat. One said, "I don't understand why it's so good when I don't like it." In this instance the satisfactions of having helped it to come into being sufficed to overcome former ungrounded feelings of dislike for the bread.

Bobby, who wouldn't eat peas, found they tasted very good after he enjoyed helping his mother to shell a batch. His fear of taking "diphtheria shots" was tempered when he was given the, to him, exciting responsibility of himself phoning the doctor for an appointment.

Children who complain of having to drink milk will often clamor for more when it can be drawn through a straw. Drinking out of a glass recalls the pains of learning this trick, perhaps scoldings to boot; whereas the soda straw and sucking have enjoyed much pleasanter associations in the history of an 8-year-old. The milk is the same in both cases.

Those who think it unreasonable that such apparently extraneous pleasures as helping to prepare a food or the use of a straw should influence the liking or taste for a food should be reminded that tastes for food are individually acquired, that wholesome foods are not instinctively rejected, and that the dislike to be overcome is probably itself the result of some equally extraneous displeasure. For example, dislike of milk may result from using the milk as a carrier of medication. It need not be distasteful medicine. The close association of milk with unpleasant feelings of the illness, accented by admonitions of "this is good for you," is enough. Who can enjoy milk when it revives the feelings of an illness and urgent "musts"?

### **The Task of Health Education**

If we assume that a certain food is a requisite of health for all who suffer no real physical distress from it, we may say: To know that this food is good for health is to be informed; to consume this food in fear of parental disapproval or to avoid ill health is to be coerced; and to enjoy this food is in this respect to be educated.

The task of health education progresses when people come to enjoy eating, sleeping, thinking, exercising, and recreating in ways that are good for themselves and others. In human beings this generally implies also a knowledge of why these ways are better. It implies, for instance, some knowledge of the calcium, protein, and other substances in milk and how these serve the body.

Sometimes we have rested after informing our pupils concerning the values of milk. More often we have urged them to drink milk. This may have made milk drinking a way to please us or to avoid something dreadful happening to them. They have therefore taken milk while in our presence or as long as they feared something. If they genuinely enjoy milk they will order it also when lunching with classmates in a downtown restaurant or when sandwiching after the dance.

The ways of connecting feelings with ways of acting are infinite. The opportunities of helping to make such connections are present in every "pupil-teacher" experience.

The succeeding pages illustrate some of these ways. The ingenious teacher will discover many more.

### Questions to Clarify These Ideas

1. Why do boys often seem to enjoy charred potatoes, "hot dogs," corn, or marshmallows prepared in their own bonfires when much less scorched food is rejected at home?

2. If a child genuinely enjoys milk, what additional value will come from his knowing its composition and function in growth? Is it conceivable that the learning of such facts could be made so distasteful as to detract from the enjoyment of milk?

3. A young woman who resisted attending social teas was found to have a mother who had insisted on treating all her childhood ills with teas. Tea A was given for headaches; B for diarrhea; C for constipation; D for dysmenorrhea. How would you explain her reactions to teas? How could this influence her ease in making social contacts at a tea?

4. It is being taught in some schools that children should refrain from smoking at least until they are grown up. Besides the unproven implication that adults are harmed less by tobacco than are the young, what fallacy of motivation is involved in this teaching practice?

5. College students who become excited or rattled when trying to ask a question in class often are found to have been reared in a home where "children should be seen and not heard" or they have had teachers who ridiculed or otherwise sharply discouraged signs of pupil curiosity. Can these facts be shown to be related in the light of the thesis here discussed?

6. Why is it easier for most people to remember a good story than an account of gastric digestion or a theorem in geometry? If you found a person for whom the opposite held true, what kinds of earlier experiences would you look for in his case?

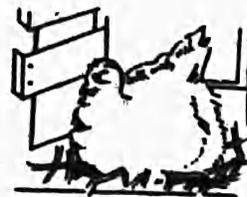
## SENSORY SATISFACTION AND THE MEMORY OF SUCH SATISFACTION



Since animals first came into being they have had to eat in order to live and grow strong. But animals do not know why they must eat. They eat when pangs of hunger give pain. They eat to overcome this and because food tastes good and the eating gives satisfaction. Sometimes an animal is born without these feelings that push or draw it to food. Such an animal promptly starves to death. Animals do not say, "We must eat proteins to get strong muscle or calcium to build bones." Nature has seen to it that they crave the foods that are good for them and that they gain pleasure from consuming these. The larger muscles and strong bones come in due course of time as an aftereffect. Thus the individual animal thrives. Wriggling, stretching, and yawning in themselves feel good. Thus there is assured better circulation and bodily refreshment. Swift strong movements in themselves bring feelings of pleasure, i.e., the *Joy of Effort*. Consequently muscles and joints are exercised to greater strength and flexibility. Animals must reproduce themselves, in some instances care for their young, to perpetuate the species. But animals do not know this. Neither the threat of race suicide nor a pride in large families spurs them to undertake reproduction. No painful sense of duty to family prompts the care and feeding of young. In her great wisdom, Mother Nature has so constructed animals that each necessary act is accompanied by feelings of relief from uncomfortable tensions and by positive feelings of pleasure. A brooding hen evidently finds satisfaction on a nest of eggs. The mother pig secures comfort and relief of tension from the act that nourishes her young. In consequence the species prosper.



Thus animals derive pleasure and satisfaction from doing that which is good for themselves and others. With perfection of memory they seem to become more skillful in finding such satisfactions.



## PAIN AND THE FEAR OF PAIN

An animal's world is full of forces that would destroy it. These he must avoid if he would prosper. But an animal does not know this. So Nature invented discomfort, nausea, tickle, and pain to warn him. In heeding them lies his protection. Burns and the memory of burns assure his safety in the presence of fire. Tickle warns him of insects that would enter his



nose to work havoc. Pain and the memory of pain prevent his jumping to a broken leg. Taste and odor may turn him from poison or spoiled foods that sicken and kill. By rewarding with sensory joys the right way, and by punishing with sensory pains the wrong way, Mother Nature has raised her billions of children through eons of time. And who would say she

hasn't done a good job? Those who would be teachers undertake to share with Nature some of this responsibility in the world of thinking animals. Their methods must match the growing possibilities of the human mind. Their opportunities are correspondingly great. If they aspire to success it will profit them



always to respect three simple rules long used by Mother Nature: (1) Make the right way the more pleasant way. (2) Make the wrong way the more uncomfortable or painful one. (3) Bring the pleasure or pain close to the crossroads where decision must be made. The mere promises of satisfactions and

threats of pain to come months or years from now are weak motivators for today's actions.



In a Kharkov workers' museum 12 years ago the writer of this bulletin suddenly faced a most exquisite head of tousled blonde hair. This hair adorned a headless scalp and was now preserved in a museum jar. Adjoining this dramatic bit of gruesomeness were two posters. The first showed how this very scalp had been torn from its owner; the second showed a simple way to avoid similar catastrophes. (The illustrations are drawn as the writer remembers the posters). Some may question this sharp use of pain in human education. Others may question the good taste of even mentioning this particular instance. But the unforgettable memory that this writer has carried through 12 years is offered merely in evidence of the effectiveness at least of these bold strokes done in the strong style of Russian drama.

### PLEASURES AND PAINS OF HIGHER ORDER

"Man does not live by bread alone." Neither are his pleasures and pains confined to such direct sensory feelings as arise from a satisfied palate or from the pain of bodily injury. Through the magic of association, the pleasures of eating are lent to the fellowship of eating and may attach themselves to the friends and ideas cultivated at the table. What money-raising effort or venture in new ideas does not become the more satisfying experience for having been conceived over the coffee cups following a good meal.

Similarly, in the mind of man, the feeling of pain becomes associated with ridicule or the fear of ridicule; with loss of friendship or the threat of such loss; with the shame of being a coward or otherwise inadequate; with the disgrace of defeat, of ostracism, or of being left behind.

In similar fashion, also, the great feelings associated with the procreative drive escape their narrowly utilitarian roles in species maintenance to reappear in the satisfaction of pleasing many friends, in the love of man for fellow man and humanity, in the feeling that finds satisfaction in protecting all that is weaker or smaller, in the inner rewards of educating the young, in the joy of "It is more blessed to give than to receive." Frustration or denial of these higher joys precipitates abysmal pain.

These higher joys and sorrows are the product of mind. Reaching upward they pinnacle to implement the conscience of sensitive man. They are the firepower that modulates his most refined actions.

To discover the experiences that tap these magazines of firepower in the lives of young adults, 972 junior and senior high school pupils representing city and rural life were invited to answer a few questions anonymously. Each question was read and briefly discussed before the pupils wrote their answers. The pupils were apprised of the purpose of the study and given a pledge of absolute anonymity. In most instances the answers indicated complete pupil understanding and co-

operation. These were the questions: (1) What kinds of things do you worry about? (2) What makes you happy? What experiences make life worth living? (3) What do you daydream about? Are you the "hero" or the "heel" of your daydreams? (4) What to your mind constitutes a good teacher? Questions (1) to (3) yielded data indicating the joys and pains of these youth and are presented here. Question (4) provided data for a later section of this bulletin.

#### Joys of Youth

The most commonly listed items involved:

- Being with good friends.
- Experiences with girl or boy friend.
- Family happiness.
- "Going places and doing things."
- Accomplishment in school and other tasks.
- Participation in social events.
- Praise of family and adults.
- Sports and hobbies.
- Outstanding athletic and other performance.
- Anticipation of distinguished service to country.
- Personal attractiveness.
- Thrill of adventure.
- Anticipation of marriage and family.
- Eating.

#### Fears, Pains, and Worries of Youth

The most commonly listed items involved:

- Disapproval of teachers and other adults.
- Failure in school work.
- War—loss and separation from friends and relatives.
- Lack of companionship with opposite sex and failure in love affairs.
- Fear of failure in life work.
- Being left out of friendships.
- Discord in family circle.
- Social unacceptability.
- Embarrassment and ridicule.
- Making social blunders.
- Own and family health.
- Lack of finances.
- Uncertainty of future in wartime.
- Inadequacy to serve armed forces.

The feelings of joy are sought after; therefore, thoughts and actions that bring joy will be performed and repeated. Thus it may be said that joys lead us or "pull" us into action. Pain, on the other hand, is avoided by every means possible. This will result in the suppression of action connected with pain. Sometimes this is accompanied by thoughtless, undirected activity as a further means of getting away from such pain, like the boy who runs away from home just to get away. Thus a person may be pushed away from something without knowing where to go. This "out of the frying pan" sort of

action may lead "into the fire" and does not assure favorable adjustment. It would follow that the most effective form of motivation would be a sort of "push-pull" kind that would simultaneously attach pain or discomfort to the course of action to be avoided and pleasure to the more healthful course of action. It should be remembered that action does not always mean movement. The inhibition of an act is also a form of response. Finally, the desirable course of action may mean the overcoming of inaction or inhibition. Either joy or pain may be associated with ideas that direct the initiation or the cessation of an activity. If a single act can at once bring forth both happiness and the cessation of pain, it is genuinely satisfying and stands a good chance of being performed. Thus eating suppresses the pain of hunger and stimulates the pleasing sense of taste. Proponents of soaps, dentrifices, and other toilet aids seem to have found it profitable to picture their products as simultaneously providing escape from social ostracism and access to the pleasure of being near the partner of one's choice!

Persons who can create such "push-pull" situations in the cause of improved health will produce change rapidly as witness the following illustrations:

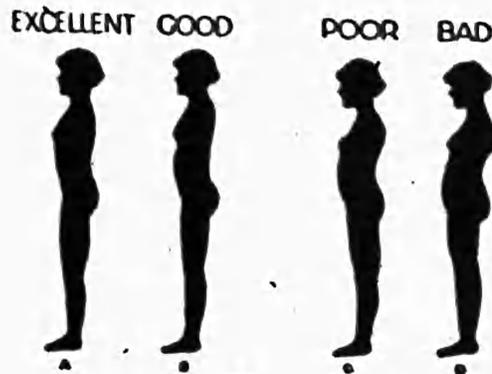
When Miss X of Mississippi requested her strapping, six-foot-two, football brother, while visiting her school, nonchalantly to clean his fingernails on the playground during recess, the practice spread like wildfire through the junior high school. Here was a single act that brought escape from adult nagging and at once partook of the glory of the football hero with whom it was associated. Now adult approval of the new habit was in order to insure its repetition.

The attendance of youth in taverns has long invoked parental disfavor and punishment. Laws were enacted to keep out the young and penalties imposed for infringement. Then someone invented the "milk bar," "dry night club," or "teenage canteen." Attendance there at once gave escape from parental disapproval and brought joys of happy fellowship craved by youth.

### ATTITUDES TO POPULARIZE POSTURE

Good posture has long been a number one goal of physical education. Much teacher-effort has been spent on it, sometimes without commensurate return. Threats of tuberculosis and dysmenorrhea have alternated with promise of relief from constipation and backache in attempts to advance the posture cause. Charts have been developed and grades sent home. At least one college has made good posture a requirement for graduation. There is some evidence that posture grows progressively poorer as children advance in school.

In this important field perhaps more than in any other, the efforts of education have been marked by truth and falsehood, by discretion and indiscretion, by good methods and poor ones, by success and failure. It is, therefore, selected for discussion in the light of our thesis of attitude formation.



*What are the facts of posture?*—Posture is the position in which muscles, bones, and joint structures hold the body when we are not trying to hold it. In this sense posture is unconscious. Any stiffly held position is but a pose. Posture goes from head to feet. Good posture is the body position that favors freedom from aches, efficient body use,

and a good appearance.

*More facts and a cold approach.*—Thousands of silhouettes of the human profile have been analyzed and classified. Four categories are recognized and graded. Obviously A is much better than D.

Some teachers have taken these research findings and harangued the D's to become A's. This merely adds the pain of teacher nagging to meaningless standards of action dictated by the black figures. The resulting attitudes are unfavorable to good posture.



Other teachers have found ways to drape the bare, cold figures of good posture with the assurance of smartness, the feeling of well-being, and the joy of success. Those of poor posture are the while clothed in the pain of ridicule, the discouragement of failure, and the self-consciousness of incorrectness. The arbitrary silhouettes thus are changed into meaningful portraits of living beings whose fortunes and misfortunes in social functions, in office, school, and street mean far more than grades ranging from A to D. The resulting combination of feeling with significant ideas of posture



Sad sack posture

represent attitudes favorable to good posture action.

*Sad Sack Posture* is imperatively the 1945 title of a poster idea

developed by Miss F, a California teacher, in 1937. It was then called "Wallflower Posture." It attempts to associate the poignant pain of being left out with faulty posture as well as the pleasure of attention and participation with good posture. Having seen such a poster, a girl can hardly think of a dance or of dancing without checking her posture. This would lead to

**SORRY!**



frequent checks and perhaps a readiness to seek a program designed to improve posture."

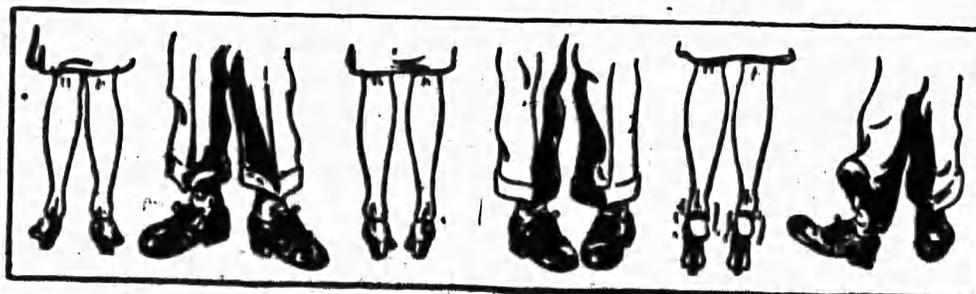
Success in life work also rates high in the concerns of high-school students. *Sorry* is designed to connect bad posture with failure to impress the employment-director. It intimates a more pleasant experience for the better-poised girl coming up.

*When the Principal Put on a Uniform* is aimed at adults. The startling improvement in appearance of many men on entering the services illustrates the combined effect of exercise and morale on posture. It is to be hoped that in the peace the principal will continue to find in the halls of Manual Tech the challenge to respectable appearance that he now finds in the "Halls of Montezuma."



When the principal put on a uniform

*Feet That Pass on the Street* has but one purpose. It tries to attach the discomfort of self-consciousness to poor leg and foot posture. The cause of the picture, would be helped but little by an attempt to picture also the perfect posture.



Feet that pass on the street—Watch your step

*Postures on Parade...*

Listen my children and let me talk  
Of the dreadful ways that ladies walk;  
Look, while we show you a style parade  
Of ladies doing a promenade,  
Just to illustrate, all in fun,  
How your walking should NOT be done

Horrible samples will soon appear  
Who by posture will make it clear  
Just what happens to women fair  
Who do not know or who do not care  
How they look when they take the air.  
Stop, Look, Listen, and Tremble, too,  
Do these walkers resemble YOU!



*Sylvia  
Slouch*



*Susie  
Swayback*

First with a slinky backward crouch  
Enters Debutante Sylvia Slouch.  
Up with hips and down with seat,  
Here is Sylvia, all complete,  
Saggy shoulders and sunken chest  
Poor old diaphragm quite depressed.  
Who is Sylvia—she's a sight!

Next we beg to introduce  
Susie Swayback, on the loose;  
Sue is full of curves and graces,  
But she curves in frightful places.  
See the hollow in her spine.  
Note the most distressing line  
From her chin down to her shoelaces.  
Ah, the streets are full of Susies!



*Hortense  
Hump*



*Samantha  
Stoop*

Here's a dowager, sleek and plump  
Cursed with a dowager's famous hump.  
Lots of dowagers get like that  
When they're lazy, and rich and fat.  
Is it something that she ate  
Or because she won't stand straight?  
Humps belong on camels, madam,  
Ladies never should have had 'em!

Down the street with a sort of droop,  
Here comes trotting Samantha Stoop.  
Here is a student who loves her books  
(Oh, how study can ruin looks!)  
Shoulders stooping and head out-thrust,  
Laugh if you will and weep if you must.  
Wherever she goes, in thought immersed,  
Her legs go last and her nose goes first!



*Sallie  
Stiff*



*Conclusion*

Parades, of course, are lots of fun  
 But what girl wishes to walk like one?  
 Yet Sallie Stiff, the crazy nut,  
 Has got a military strut.  
 With shoulders stiff and backbone rigid,  
 She has a gait that's simply frigid.  
 If Hitler saw her, he'd enlist her  
 But where's the man who's ever kissed  
 her?

Now that we've tactfully put on the spot,  
 Ladies who walk 'as they plainly should  
 not,  
 If our review is to do any good, we'll now  
 Show someone who walks as she  
 SHOULD!  
 So in conclusion we're pleased to pre-  
 sent,  
 Miss Polly Posture, a maid heaven-  
 sent,  
 Easy and graceful, natural and fine,  
 Showing respect for her chest and her  
 spine,  
 All of her inwards in perfect alignment,  
 Here is the essence of grace and re-  
 finement.  
 Do you observe, as she comes into view,  
 She walks exactly, precisely like YOU!  
 Then let us add, according to plan,  
 "Not as you do, dearies—just as you  
 CAN!"

#### Seven Points Of Good Standing Posture

1. Feet parallel, weight on whole foot
2. Knees slightly relaxed
3. Chest high
4. Abdomen flat
5. Shoulders relaxed
6. Head up
7. Chin in

The posture described above is good for both outside and inside reasons. Outwardly, it is the most beautiful arrangement for the lines and curves of the body. And inwardly, it is the most comfortable for the heart and lungs, the stomach and the spine. When they're comfortable, they work better. And when they're uncomfortable, they have cranky ways of saying so. (Headaches, backaches, indigestion, and menstrual difficulties, for instance.)

It's perfectly true that the impulse to stand or walk well must come from within. It's a matter of energy and vitality. And how does one get energy and vitality? Well, a simple way is to eat them.

#### Seven More Pointers Of Posture

(And they're good enough to eat!)

1. Weight balanced  
(milk, vegetables, meat, fruit. Just enough)
2. Bones firm  
(milk, cheese, leafy vegetables, fruit)
3. Vitamins vigorous  
(milk, cream, butter, fruits)
4. Blood bounding  
(meat, eggs, vegetables, fruit)
5. Tissues sturdy  
(meat, milk, eggs, beans, peas)
6. Energy IN  
(bread, potatoes, sugar, butter, ice cream, chocolate)
7. Fatigue OUT  
(8 hours' sleep nightly, milk daily, relaxation frequently)

Several years ago Barbara Abel of the Chicago YWCA created *Postures on Parade* for young business women. This choice illustration of the use of ridicule to influence the posture attitude is reproduced

with permission of the National Dairy Council of Chicago which published it in pamphlet form. Unpleasant feelings of ridicule are aroused in connection with typical faults. A sense of security and assurance of correctness is associated with good posture which is described and analyzed. At this juncture the reader is presumably eager for a course of action, recommended on the last two pages, to develop good posture.

### POTENT WORDS

Every story is a picture; every picture tells a story.

There is much to learn. Instruction time is short. The health, happiness, and life of a pupil depend on how he acts. Good instruction *pre-pares* and *fore-warns* so that this action when it is needed will be right.

Persons vary in their ability to "burn" action tendencies into the thought patterns of others. Such ability to form attitudes marks the good writer and the forceful speaker, and makes it difficult to forget what they have said.

The following problem was posed to several senior English classes:

Imagine: You are talking to a group of your contemporaries. They all know a fly when they see one. They know what flies eat and where they breed. They know the living habits of flies. They even know that flies have fuzzy bristles on their legs. But one thing they've never heard about. They don't know that flies carry disease germs to man and his food. You have about three minutes in which to tell them something that will for all time make them safe in a world where flies carry death to man. You must make them fly fighters! fly killers! Assume that no one else will ever tell them about this.

What will you tell them?

Here are a few of the seniors' answers. They display varying amounts of "firepower."

1. A fly is a very bad insect. It carries germs into your house and sometimes causes sickness. In order to prevent all this we must have screened homes so the flies cannot bring germs into our home.
2. Imagine you are a soldier with a large gun that could sink the enemy ship that is coming toward you. Unless you sink it hundreds of well-armed enemies will rush on you. See that fly! It is the enemy ship. Its legs are full of enemy soldiers. When it lands on us these soldiers (called germs) will attack us.
3. If you watch a fly in action you will see the many places it goes: (a) the floor; (b) the flowers; (c) the ash tray; (d) Grandpa's face and nose—then to the table and the chocolate cake.

4. The fly is very nasty. He dabs into everything that is dirty. Then he comes sailing through the house and sees a cake or other food on your table. He dabs down for a while and cleans himself off in your food. Maybe in your milk. He may leave a death pill for you. Are you going to take it?
5. Flies are not particular about the places they visit. They will fly from open toilets, dead horses, and pig pens to the food on your table.

All of these statements are essentially true; but they differ widely in the feelings they arouse and connect in your mind with flies. After hearing these statements read to her, one teacher reported a feeling of nausea when she saw a fly at the dinner table a few hours later.

Now read the following statement written by another student:

You dread leprosy. Well, there is always a chance you'll catch it by having a fly unknown to you fly from a leper, land on you, and start prodding away at an open wound and infect you. When this happens, you're sunk.

The statement is forceful but untrue. The association of a strong feeling with a half-truth or an untruth characterizes quackery and superstition and accounts for their effectiveness. With this in mind, study the following statements:

Bury a relative on Friday and another will die in a week.

Go to bed singing; wake up crying.

Eat burnt toast and get curly hair.

A clean tooth will never decay.

Worry, fear, or strong desire in a pregnant woman will mark her unborn child.

Feelings when *correctly* associated with courses of action, make for prompt, skillful adjustments to life. When, however, incorrectly associated, they will cause us to make false moves or they may unduly inhibit our acts. The result is maladjustment that may range from unnecessary actions and insignificant peculiarities to more serious mental disorder.

#### A Teaching Suggestion

Problems such as the following may be given to pupils. Their spontaneously written answers will probably be most interesting.

Imagine you are seeing your 12-year-old younger brother or sister off on his first trip alone to a congested town or city. What advice would you give him?

Imagine an influenza epidemic is starting in your town. What would you tell a group of your contemporaries that will impress unforgettably the need of appropriate personal precautions?

In a discussion of their answers it will be interesting to consider the following:

Do they tell the truth? Do they arouse feelings that would encourage the right actions and stop the wrong ones? Is there any danger of causing unnecessary inhibitions in an emergency such as "freezing" to the spot in the face of a traffic accident or becoming hypochondriac or overly sensitive about health?

### WHEN THE END IS NOT IN SIGHT

Distance is relative. The road may be long,  
the atmosphere beclouded, or the traveler nearsighted

An act that leads to the preservation of the individual or species is desirable. One that weakens or destroys is undesirable. When the result follows the act promptly and with dramatic force, the job of education is simple. Thus the dangers in a sharp knife, in cyanide poisoning, in jumping from a third-story window, or in botulism are quickly learned. The results are so sure, come so quickly, and are the same for everyone.



But let us imagine that it were possible to jump and float through space for 20 or 30 years, that the eventual landing would be easy for some, destructive for others, and that the sensation of floating was in itself very pleasant. How many people would jump? How effective would be the ordinary warning? What could be done to prevent people from jumping?

The success of education is oftentimes jeopardized by the pleasantness of "floating" and the distance between cause and effect. Why study arithmetic in order to be a successful engineer 20 years hence, especially since there are more pleasant things to do and maybe you'll never be an engineer? Why learn not to say "ain't" to avoid the embarrassment of being an uncultured adult a decade later? To the youth with large reserves of health, the slow-coming dire effects of a vitamin-deficient diet seem unreal. The 37 percent chance of dying prematurely because of smoking is hardly a deterrent to one who wants to appear grown-up and to whom the fiftieth birthday seems a long way off. Even tomorrow's sunburn pains following long pleasant hours at the beach are hard to think of at the beach. Yet man must profit from the experience of others if he would progress. When science has established the cause-

effect relationship between a course of conduct and undesirable/consequence, be these separated by minutes, hours, weeks, or years, it becomes the responsibility of education to see to it that the behavior of persons is such that the individual or species be spared the unhappy consequence. To accomplish this many methods have been employed. Their success depends on how much feeling can be brought into the present situation and associated with the causal behavior.

It is generally assumed that the promise of a satisfying reward or the threat of painful punishment to come will move people. This is one of the commonest errors made by parents and teachers. *We are not moved today by the feelings we will experience tomorrow.* The bliss of healthy motherhood is a potent factor in her mother's life, but means very little to 15-year-old Janie who today must solve the problem of late hours on an adolescent level. The threat of whooping cough with its most dreaded after effects excites health departments to action, but does not move 6-year-old Bobby who fears shots and recalls no pains of serious illness. Even the threat of death has no sting for youngsters who have never lost loved ones, either human or animal, in this manner. Each generation must "learn by its own mistakes" until educators learn to connect the feelings that will accompany the consequence on the morrow with the act of today that is responsible for this consequence. Failing in this, they must utilize other feelings to motivate today's acts.

When a pet dog is overrun by an automobile the unfortunate experience may add to the safety of his little mourning friends and master if parents are alert to utilize the situation wisely. This first experience of the pain of death may thereafter serve as firepower in the formation of attitudes relative to street crossing.

The vitamin story becomes vivid, when pet rats or guinea pigs are made sick temporarily on defective diets. Children do the feeding, weighing, and observing. The pets are well liked and their illness arouses strong feelings in children. The transfer from pet to self is usually not difficult.

Eating is not always all to the good. Mothers get pleasure from feeding their young; and the young enjoy eating. Mother and daughter need to be reminded that "bigness" is not all. The act that pleases mother today may cause the young lady of tomorrow the pains of ridicule and lonesome adolescence that plague the fat sophomore. But adolescent joys and pains seem unreal to a hungry 9-year-old and, at best, a faint memory to her energetic mother who grew up "the hard way." Still something must be done.

*Grace! Poise! Beauty! Charm!* was used with startling success by Miss M, the physical director in a home for delinquent girls. She found that many of these girls when deprived of their liberty reverted for satisfaction to the joys of eating. This poster which was right on their level lent its glamorous feel to the word "Calories." This opened the door for discussions on nutrition and led to the reservation of a special table in the home's dining room for the newly calory-conscious ones. Here it became smart to talk about wholesome foods.



The original of *Dora Dumb* and *Susie Smart* was created by Miss P, a California high-school teacher, to help girls to look ahead at least 8 hours. It is obviously more effective than a rule such as "Never stay in the bright sun more than 30 minutes unless you are already tanned." Its genius lies in bringing the pain and pleasure of the evening up alongside of their morning causes.





Smoking provides an interesting but far more difficult illustration in the area of postponed effects. Let us assume that teachers, parents and pupils are well-informed of the following established facts: (1) Smoking a package or more of cigarettes a day burdens the heart and circulation, reduces athletic performance in endurance events, and is associated with six times as much heart involvement suffered by heavy smokers in their forties as by nonsmokers; (2) the irritation of heat, ashes, and tars induces throat difficulties and contributes to mouth and probably lung cancer; (3) the deaths of 37 percent of heavy smokers (20 or more cigarettes a day) who die before age 60 are probably hastened by their smoking.<sup>2</sup> Excepting athletic performance, these threats are far off and consequently leave the average adolescent cold. But this is not all. Much systematic effort is directed toward confusing these facts. All forms of pleasure have been, without conscience, attached to this habit. What then can parents or teachers do to help youth to forestall its consequences?

Some parents forbid smoking and introduce feeling by punishing the act. Some coaches withhold the privilege of playing on varsity teams from those who undermine their performance with the habit. Some rely on a presentation and discussion of the scientific facts. Some try to exact a promise to postpone smoking until age 21 on the false assumption that adults are harmed less than the young. Some lead with a personal example of abstinence; others do not. It must be admitted that little success has crowned these efforts. The reasons for this seem clear. People for the most part do not smoke because it tastes good, because they really feel better, or because they think it is right and good. Many smokers, in fact, confess they wish they did not smoke. People smoke because inordinate parental restraint has made

<sup>2</sup>These facts are documented in Steinhaus, A. H. and Grunderman, F. *Tobacco and Health*, New York, Association Press, 1943.

smoking a symbol of emancipation, or because of example set by parents or friends ~~and~~ by persons in high places, or because advertisers spend millions annually to associate the feelings of fine music, the sensation of pleasing colors, the beauty of face and form, the sense of smartness, and many other pleasant feelings with the act of smoking. The radio, magazine covers, Sunday colored comics, in fact every medium of communication is used to promise pleasure to the smoker. Truth and reason are given no primary consideration. Since the smoking habit is not based on reason, why should reason be expected to break the irrational habit? Such a habit must be "unlocked" with the same key that locked it into the behavior of the individual. The accompanying pictures illustrate this kind of attempt. The high-school students' cartoon, *Mary had Tobacco Breath* is so much in the style of the ever-present comic strip advertising that its genus is obvious. It has been suggested that only the first three scenes are necessary to tell the story to an intelligent person; but apparently commercial advertisers find it pays to run such strips to their obvious conclusion. Some may consider this a concession to the low intelligence level of the average reader. Others will see in the last pictures of such strips a studied effort to associate one more happy feeling with the solution offered by



We do not need to smoke now.  
They have all gone.

the advertiser and his product. The first part of such a strip would leave only the unpleasant feeling associated with the wrong course of action. By this analysis, the first part of such strips inhibits one form of conduct and the latter part activates another form. This strip and the sunburn reminder illustrate the "push-pull" form of motivation. The reader is pushed away from one form of action by pain or ridicule and led into another course of action by pleasure and satisfaction. The soda fountain story was inspired by a magazine cartoon. It seeks to attach ridicule to conduct that is motivated by the pleasure of secretly believed but false solutions for personal

inadequacy. Obviously such illustrations are most effective in cases where the "shoe fits."

### TIMELINESS

Strike while the iron is hot!

As local and world events move on their way, there rise and move with them great tides of interest, enthusiasm, fear, and curiosity in large sectors of the population. Similarly the events of growing up, of maturing, of preparing for marriage, of family life, and, finally, of aging sweep over each generation, to stir successively, in characteristic fashion, each its peculiar form of human feeling and interest. Today

blood banks and the problems of transfusion interest everyone; tomorrow an infantile paralysis epidemic or a train wreck may open the door to many minds. At 13 the boy cannot be seen with girls, at 15 he is unhappy without them, at 25 he is ready for feeding formulas and how to get gas out of a little stomach.

The health teacher will find his efforts yielding higher returns if he learns to read this barometer of human feelings and to time his instruction accordingly. Why teach how to care for bridgework when the pain of erupting molars seeks explanation? Why discuss cholera epidemics in the face of an influenza threat? Understanding the tides of human feeling raised by large events, the health teacher can use them to raise his teaching to more effective levels. Ignoring them, he may exhaust himself in buffeting their great force.



What is he talking about?  
Heart trouble?

This is no argument for rank opportunism or "courseless" teaching. It is a proposal to use the swells and currents of human feelings even as an experienced skipper uses each wind and wave in ways that will hasten his craft most securely on its course. Such teaching requires alertness and flexibility that some attain easily. Others will need more practice.

The teacher will need to see, hear, and read what his pupils see, hear, and read. He must find occasion to join their conversations in halls, lunchrooms, lockerroom, and on the street. He must live for a time each day in the world of their thoughts and cultivate their confidence. Doing this he must rethink his formal knowledge and rearrange his bibliographies in terms of meeting their problems.

At a time when people are stirred by reports of a fire that killed many persons in a public dance hall, this teacher finds feelings and curiosities ready to attach themselves to (1) the appropriate first-aid treatment for burns; (2) the nature of first-, second-, and third-degree burns, their course of healing and their complications; (3) modern medical practice in the treatment of burns and reparative skin grafting; (4) the nature and care of ordinary blisters; (5) what to do in case clothing catches fire; (6) the psychology of mob action in a panic; (7) city ordinances relative to building construction and fire exits; (8) how pan drapes and decorative hangings be fireproofed.

A few more instances may serve to test the reader's skill. What health teaching would seem appropriate and timely on the day when:

—the papers carry accounts of high waters and floods in the Mississippi Valley.

—a serious earthquake has wrecked a large city.

- seven senior boys who eat lunch at the same corner lunchroom have suffered serious digestive disturbance.
- a member of the wrestling team is suffering an infected mat burn.
- there is public sentiment to close the schools because a number of pupils have come down with scarlet fever.
- there is evidence that marihuana cigarettes are sold in the high-school neighborhood.
- many sophomore boys and girls are suffering acne.
- the football captain broke an arm in scrimmage.
- the girls' athletic association is planning an overnight hike.
- the hay fever season is at its height.

### FEELINGS TO MATCH THE CAUSE

Every war brings great interest in health and fitness. It also brings the hope to health and physical educators that the Nation has learned its lesson of fitness and will never again let itself become unfit. The aftermath of each war has belied this hope. It will happen again unless we learn the lesson of "higher feelings for higher causes."

The second world war has demanded greater united participation of more Americans than has any event in our history. Since this was brought about with the minimum of police force, it will serve every one of us to study the many means that were employed. We have witnessed a most successful use of posters, radio, press, movies, and public address to bring man's noblest feelings and ugliest hatreds into the war cause. Although the appeal of high wages, of smart uniforms, of high interest rates and many other lures to satisfy self-interest were used, it is likely that the appeals to be "the man behind the man behind the gun," to save a life with a pint of blood, to release a soldier for active duty, to "back the attack," to give till it hurts, to shorten the war, and to insure the four freedoms, stirred finer persons to greater effort.

We have successfully moved a nation to prepare for and wage war. Can we as successfully move a nation to prepare and make peace? Can we move people to keep themselves fit for the heavy task of building a new order even as they made themselves fit to undo some of the old order? This will come only if we are able to carry into the peace some lessons of how to move people that we learned in wartime. Some will think this means using the manuals and materials prepared for the war. Some will think this means holding before our people the importance of being fit for the next war. Such dragging of wartime materials and goals into the peace will fall short as positive motivation. It brings along too many unpleasant feelings. It pins too much hope on fading memories and distant threats. Someone has suggested that with the cessation of hostilities we put aside wartime

schedules and manuals and that we set out to give as much sweat and brainpower to the preparation and motivation of peacetime programs as we gave to the war. Something like this is necessary. Anything else is too easy, too much like educational coasting, and smacks of laziness. Unless health and a high level of fitness are needed for the full enjoyment and maintenance of a peaceful world, we have no business making such demands of people. If they are needed, then we who aspire to be educators must define these needs in understandable language



(See pages 37-39 for text about the posters)



and at once bring them so vividly to the attention of people that they will want to do something about them. In this we will need to enlist again the intelligent cooperation of radio, press, movies, public servants, and many other helpful resources.

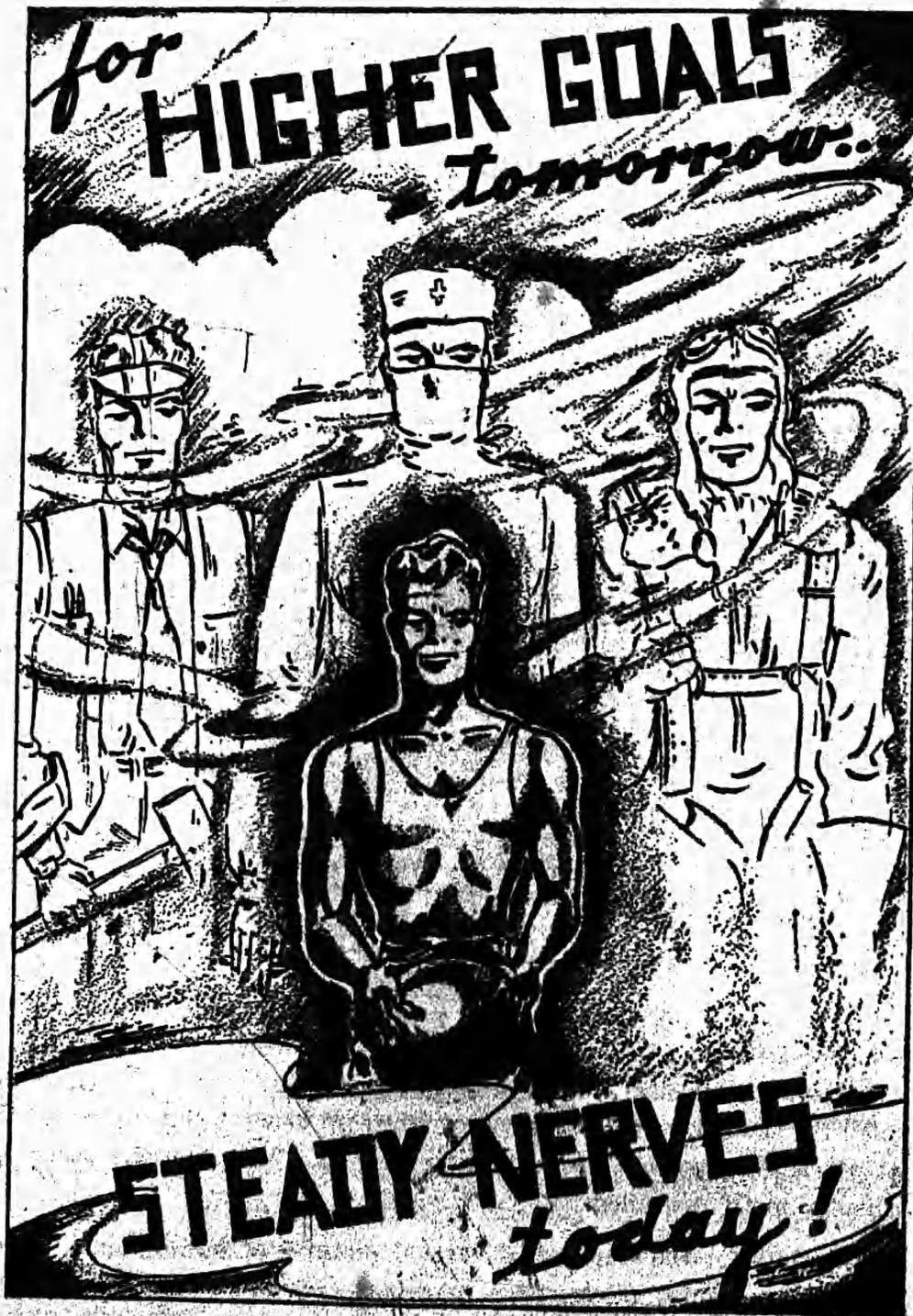


To sharpen one aspect of this problem the author has asked several college classes to prepare a couplet of posters—one to promote some aspect of health in the present war period and another to promote the same aspect of health 5 or 10 years hence when the world is at peace. The posters proved most revealing. With few exceptions a common motif prevailed.

Posters for the war period carried pictures of battle scenes, men in uniform, tanks, pilots, flags, paratroopers, and other symbols of

strength, honor, patriotism, and all-out devotion to high causes. In each case the wording or the picture itself proposed a course of action favorable to health and to the attainment of the big feeling and noble end so dear to every American. This is illustrated in the upper picture of each of the couplet posters reproduced in this section.

The posters for the peace were, with few exceptions, devoid of such power to move people. Here were used our old standard appeals to beauty of body form, to poise, power, charm, and other self-centered



feelings. Two of the couplets selected illustrate this weakness of our peacetime appeal. In the food poster created by Miss S, dumbbell pushing and the "look what a big boy am I" feeling replaces the jungle marine model of manhood. In the exercise poster designed by Mr. R, the joys and poise of mallet waving are offered to move men in the peace as waving flags and charging cavalry did in wartime. Do dumbbell pushing and mallet swinging "pack the wallop" needed to move boy or man to eat and exercise adequately?

The T.B. poster designed for use in a Chicago Settlement House by Mr. L. seems to have found a happier solution for the peace. *Fit to enjoy his home* would seem to arouse, on behalf of the chest X-raying program, feelings for peacetime that are commensurate in bigness and importance to those aroused for the war period.

*For higher goals tomorrow* is an attempt to associate the noble feeling of service to mankind through a high career with a program of sport to develop the needed stamina of muscle and nerve.

The stories of these posters as of all others could be told in words as well as in pictures. The addition of color to pictures and words often increases their effectiveness. The examples here reproduced are at best mere suggestions of what could be done if we mobilized the best brain power, artistry, dramatic force, and devotion to create yet undreamed-of ways of arousing the strongest and noblest feelings of man in the cause of increasing the quantity and quality of human life. Such workers would find in this task the highest joy and satisfaction, that of serving mankind.

### RENOVATING ATTITUDES

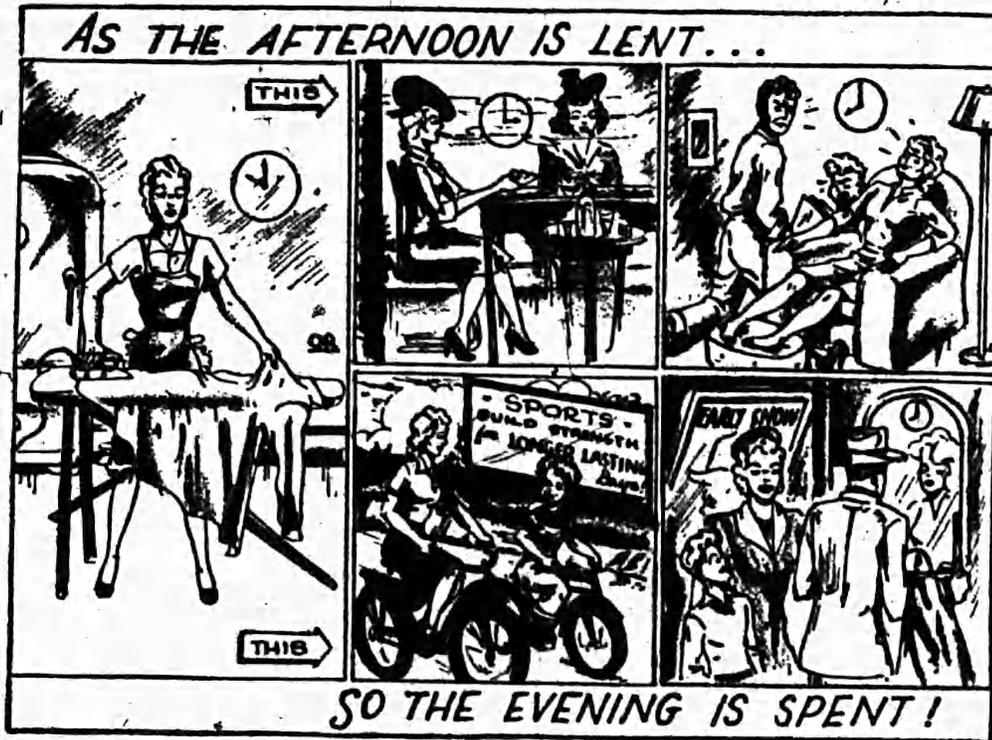
Wrong attitudes must not be ignored. Once they are clearly defined they can be more easily attacked. It is apparent that everyone able to read has already lived long enough to have formed many right and wrong attitudes in relation to health. Some of these attitudes seem almost to be inherited, they are so common to man. Such ones need special attention. The pictures in this section illustrate efforts directed toward correcting three specific attitudes.



The dental poster is one of the U. S. Public Health Service's popular "Big Joe" series that has done much to annihilate the strong man attitude that "it is sissy to take care of oneself."

*As the Afternoon is Lent* is an effort to correct the notion that busy people, even hard workers, need no exercise. It connects the joy of a happy family evening with an exercise

program that builds the necessary stamina to make such an evening possible after a day's work.



Where does your son get sex education was designed by Mr. B. to correct attitudes of lethargy or embarrassment relative to sex instruction of the young, held by so many parents. Used in a Chicago YMCA, this poster helped to recruit a class of over 80 parents to discuss the problems of parental responsibility and opportunity in this important field.

**Where does YOUR son get his SEX EDUCATION ?**



**EACH GENERATION HELPS REAR ITSELF**

The needs of babyhood are met by parents. The pleasures of food, warmth, shelter, and safety as also the pain of punishment or displeasure are theirs to give and withhold. Soon, however, approval is needed also from others. Playmates control the pleasure of belonging to the gang as well as the pain of ridicule and ostracism.

With adolescence new hungers mature which, no matter how hard they try, parents cannot satisfy. Going with mother to a movie is nice, but somehow often leaves the 17-year-old girl a bit unsatisfied. An evening at the club with the boy's dad may be fun, but is no substitute for the junior prom. This is as it should be. The good of the species is ultimately better served when young people feel the need to be in each other's company and to be acceptable to each other.

At this time the control of firepower passes largely from the parental to the contemporary generation. But this does not end the role of parent or teacher. The wise adult will welcome the new generation as his partners in the business of education. He will observe and frankly discuss with them their new feelings and how these feelings can be used to build or to destroy their own generation. He need not feel that this cooperation will result in a lowering of standards. More likely, their idealism, loosed and recognized, will set goals that he has ceased to dream; they may turn the tables and adopt him into their generation as senior partner and adviser.

To sample adolescent ability to form attitudes in their contemporaries, several classes of city and rural high-school seniors were given the following problem. Their replies were assured absolute anonymity.

Imagine yourself at a railroad station to see off a good friend. If you are a girl you are bidding farewell to a draftee. If you are a boy, it's your sister or a good friend that is joining the WACs or WAVEs. Assume that your friend knows a great deal about diseases and how they are transmitted and that this knowledge extends to venereal disease. You have a few minutes in which to say something that will help to bring your friend back home as clean and wholesome as he now is. What will you say? If you prefer you may put your ideas into letter form.

Their answers showed a wide range of effectiveness. From the instances that follow the reader may judge to some extent if this generation is prepared to assume some share of responsibility for rearing itself.

A 17-year-old girl to a soldier—

Bob, remember that good health is one road to success and happiness. Practice all the good health habits daily for that is the way to keep healthy. You will come in contact with many diseases and an ounce of prevention is better than a pound of cure.

Senior girl to boy friend—

Eddie, you and I have known each other for a long time. We grew up together, fought with each other when we were kids, etc. I think the world of you, just as I do of my own brother. Things are so mixed up in this world today. The generation is not as well brought up as it should be. Eddie, take care of yourself. Keep away from the girls that aren't worth a darn cause you can never tell what disease they may carry, especially venereal disease. I do want you to come back the swell fellow that you are going in.

17-year-old boy to his sister—

Mary, I hope that wherever you go you will live as you have been and come back as you now are. You know how a girl can change if she goes out with bad company. I know you will do your best to go straight and do your job well. You should have fun by all means; but take good care of yourself and keep your head. You will not find this hard because you know Jack is away in the Marines and also finds it tough. You can reach him by letter and phone. Some day the war will be over, soon I hope, then things can go on as before and you two can live normal lives.

Senior girl to a draftee—

Tom, I'm going to miss you. We've been like brother and sister to each other. I know you and Susan are in love and will be married after the war is over and that is wonderful. You are leaving not just to fight a war. But you are fighting for freedom, honesty, truth, and everything to make this a better world for the generations to come. Do nothing to bring shame and disgrace on yourself, your family, or Susan. Think what you are fighting for—all the good, clean things of life. If you, yourself, go out and do things that are unclean, how do you expect to have a better world? Remember you are fighting to win this war so you can come back home, and have a life like you have always planned.

Another senior girl to a draftee—

You know, Bob, that when you go you are leaving behind, here on the home front, your family and friends. Your parents gave you a good raising, and brought you up in a religious way. They will not be along to guide you and to shake their heads when you do something wrong. You are on your own and they are depending on you to keep yourself straight. When you come back you will probably marry, and you will want her to be the nicest girl in the world, and she will certainly want you to be the nicest boy, and as your children grow older they will say "My Daddy kept himself straight, and I want to be just like him"—so don't you think it is worth your while to watch your company and actions while you are away?

The author of Proverbs VII set himself a similar assignment when in Old Testament times he wrote the following lines to the youth of his generation:

My son, keep my words, and lay up my commandments with thee.  
Keep my commandments, and live; and my jaw as the apple of thine eye.

Bind them upon thy fingers, write them upon the table of thine heart.

Say unto wisdom, Thou art my sister; and call understanding thy kinswoman:

That they may keep thee from the strange woman, from the stranger which flattereth with her words.

For at the window of my house I looked through my casement,  
And beheld among the simple ones, I discerned among the youths,  
a young man void of understanding,

Passing through the street near her corner; and he went the way to her house,

In the twilight, in the evening, in the black and dark night:  
And, behold, there met him a woman with the attire of an harlot,  
and subtil of heart.

(She is loud and stubborn; her feet abide not in her house:  
Now is she without, now in the streets, and lieth in wait at every  
corner.)

So she caught him, and kissed him, and with an impudent face said  
unto him,

I have peace offerings with me; this day have I payed my vows.  
Therefore came I forth to meet thee, diligently to seek thy face,  
and I have found thee.

I have decked my bed with coverings of tapestry, with carved  
works, with fine linen of Egypt.

I have perfumed my bed with myrrh, aloes, and cinnamon.

Come, let us take our fill of love until the morning; let us solace  
ourselves with loves.

For the goodman is not at home, he is gone a long journey;  
He hath taken a bag of money with him, and will come home at  
the day appointed.

With her much fair speech she caused him to yield, with the  
flattering of her lips she forced him.

He goeth after her straightway, as an ox goeth to the slaughter, or  
as a fool to the correction of the stocks;

Till a dart strike through his liver; as a bird hasteth to the snare,  
and knoweth not that it is for his life.

Hearken unto me now therefore, O ye children, and attend to the  
words of my mouth.

Let not thine heart decline to her ways, go not astray in her paths.  
For she hath cast down many wounded: Yea, many strong men  
have been slain by her.

Her house is the way to hell, going down to the chambers of death.

## **SATISFACTIONS FROM DOING AND SERVING**

Many experiences that bring feelings into the learning situation  
of students can best be pictured in word accounts describing projects  
and experiences devised or guided by successful teachers.

The joys of accomplishment and the satisfaction of serving a  
group come regularly to pupils who are encouraged to prepare class-  
room reports when there is reasonable chance of finding materials and  
the teacher assures the report an appropriate reception and discussion;  
to pupils who explore their own neighborhood or city to search out its  
health agencies; to the committee of pupils that calls on the city  
health officer to report their interests and to invite him to address the  
class; and to the pupils who make posters or write health articles for  
school papers. The boy who operates a motion-picture projector for  
the class gets more than the story of the film out of the program. The  
pupils, who write for health literature under teacher guidance get  
more than the literature in return for their efforts.

In one school a Mr. and Miss Goodposture contest was held. Be-  
fore public announcement had been made, members of the health class

observed pupil posture in the halls. The class conferred and checked notes. The 10 best and 10 poorest postures were photographed, "on the run" by one of the boys who owned a movie camera. Movies were then made also of others who desired it. Much interest centered on the showing of this film. Pupils and teachers served as judges to choose the most graceful and well-poised walkers. A new posture attitude was created in the school.

In another instance, good taste in "make-up" and grooming came in similar fashion to school-wide attention. Outstanding boy-leaders as well as teachers in the art department and a downtown beautician and stylist were brought in to judge and advise.

When a group of students answered a number of quack ads found in magazines, the return mail gave them first-hand experience with quackery. This, their own mail, was subjected to unusually alert analysis and helped to develop a healthy "show me" attitude toward such ads and mail.

The production of deficiency diseases in small animal-feeding experiments; the demonstration on mice or frogs of the action of nicotine collected in home-made "smoking machines"; the discovery of germs on fly legs; and many other observations when made by pupils will bring to the facts discovered, all of the satisfactions intrinsic to keeping pets, to making things, and to putting on demonstrations. It would lead one to conclude that a teacher should do none of the so-called routine tasks accessory to education without first assuring himself that their doing is devoid of such positive feeling values for his pupils.

If there are to be health rules to check, pupils should share the feelings of significance or importance that can come to them from participation in the formulating of such rules.

There are instances of tremendous satisfactions coming to scores of people who have been led to undertake the discovery and solution of community health needs with resources resident in their own midst. Such deep-going satisfactions from service to community have provided the driving force for the excellent county-wide health projects demonstrated in some of our Southern States, and illustrate the possibilities for motivation resident in democratic processes when guided by the genius of a skilled community health educator.

The sheer joy of accomplishment, of completion to perfection, motivates many of our actions. Some people just cannot stop until the task is done, be this the completion of a cross-word puzzle or the scaling of the last unconquered mountain top. The sighting of a goal starts a feeling that is satisfied only by attainment of that goal. Satisfaction comes from checking off another item from the list of things

that need to be done. This is the "magic" of a specific list of goals or standards. Pupils may be encouraged to set up their own lists.

The following 12 items comprise one such list. It was proposed by the writer to summarize the health achievement that should mark the educated citizen of the future.

1. He is free from all curable diseases and remediable defects, including dental defects, halitosis, and body odors.
2. He is immunized and vaccinated in accord with practices approved for the area of his residence. He understands the nature and reasons for these practices.
3. He knows and understands the findings of his own chest X-ray, blood test, blood typing, blood pressure, and eye and ear examination.
4. He is able to identify in himself and in others the onset stages of illness and knows how to secure appropriate medical and hospital services.
5. He enjoys a wide range of wholesome nutritive foods, and knows why these are desirable. He knows when and how to eat, and successfully regulates his bowel movements without recourse to medication in any form.
6. He has his own body weight under control and is able to modify it safely when needed, within limits controllable by diet.
7. He possesses good physical strength, endurance, flexibility, and posture; and understands the principles and methods for maintaining the same without reliance on foundation garments. He is able to run, jump, and swim well.
8. He is free from handicapping habits relating to the use of alcohol, tobacco, the many pain killers, and dopes, including the excessive use of caffeine or benzedrine.
9. He possesses hobbies or other recreational habits consistent with the time and opportunities available to him.
10. He shows nervous stability and behaves in accord with the best practices for maintaining mental health. He has appropriate sleep habits.
11. He has attained a reasonably satisfying philosophy of life.
12. He is informed of the best knowledge and practices surrounding courtship, mate selection, marriage, reproduction, the rearing of the succeeding generation, and of how sensibly and gracefully to accept the change that aging will bring to his own body.

### THE TEACHER AS MOTIVATOR

The most certain difference between a teacher and his pupils is that the teacher has been on this earth a little longer. This has offered him more opportunity to observe and to learn. Assuming he has utilized each such opportunity and learned from his mistakes as

well as from his success, this may be the only real advantage that he enjoys over his pupils. Most likely some of his pupils outrank his native intelligence. No doubt he faces problems of health and health habits even as do his pupils. These he must solve if only to be more successful in helping them to solve theirs.

No greater reward comes to the earnest student than the approval and friendship of his "best" teacher. A smile starts his day right. A timely, well-earned commendation repays the greatest effort and may shape a life. Consciously and unconsciously the pupil often adopts the ways of his teacher, also those that he thinks his teacher would approve. This, like any other natural law, the teacher



cannot escape. He can but accept it as a sacred opportunity and direct his own ways so that their emulation in the lives of his pupils be no embarrassment to him and, in fact, be an asset to them.



But be the teacher genuinely disliked, he may yet influence the lives of his pupils, and this in the most unexpected ways. Finding open defiance to a teacher impossible, the pupil may derive satisfaction from destroying both his precept and example with contrary actions.

Let anyone ask a group of high-school seniors what teacher stands out as the finest influence in their lives. Or let him ask after the worst teacher. He will get stories such as these:

He was firm and well-mannered. He never raised his voice to scold, but always kept things under control. He taught us economics and coached the basketball team.

Our chemistry teacher always gives us the benefit of the doubt. He is neat and pleasing in appearance. We really learn something in his room.

She looks nice, but isn't too glamorous. She does not sit around like an old maid all the time. She enjoys our parties and dances.

She is fat and messy looking. Always eats candy at her desk.

He is nervous and always taps the desk with a ruler.

The well-liked teacher calls forth pleasant feelings in his pupils. These feelings become attached to all of the ideas and courses of conduct discussed in his presence and with his approval or his imagined approval. When these attitudes charged with pleasing feelings result in actions, these closely resemble the action patterns he proposes by precept and by example. In this way the pupil becomes like the teacher he admires. Further, if such a teacher expresses approval of any student act he gives the joy that is likely to assure repetition of the act. With an expression of disapproval he can inflict the pain



that will inhibit its repetition. Thus unconsciously and consciously the well-liked teacher manipulates "firepower" that influences pupil action.

Since teacher influence on pupil action works with the regularity of natural law, every teacher who aims to influence the lives of his pupils will further this purpose if he examines himself, his mannerisms, and his appearance in the mirror of pupil opinion. In the answers of 972 junior and senior high-school pupils the "good" teacher was described in the following terms. (The items are placed in order of decreasing frequency of mention. The list compares favorably with the findings from a more comprehensive study reported by Frank W. Hart in *Teachers and Teaching*, MacMillan, 1934.)

A good teacher:—

- Is patient and understanding
- Has a sense of humor
- Is helpful and cooperative
- Is friendly and companionable
- Is reasonable in assigning home work
- Has a good disposition
- Maintains discipline
- Shows no favoritism
- Explains what he is talking about
- Has skill in teaching
- Does not yell or lose self-control
- Has attractive personality
- Is helpful in personal problems
- Is courteous and kind
- Is not superior or aloof
- Is cheerful
- Makes work interesting
- Does not ridicule or belittle
- Is lenient in grading
- Is a good dresser
- Encourages class discussion
- Is a "regular guy" and good sport
- Knows what he is talking about
- Punishes mildly
- Encourages pupil initiative

## THE TEACHER—A HUMAN BEING

To all of this the teacher himself is no exception. He also does with enthusiasm that which brings joy and satisfaction. Failing to find satisfaction in his work, he may seek it in irrelevant diversion, his teaching will slump, and as each day becomes a merry-go-round of empty routine his spirit suffers. To forestall this happening he must take time and thought to gain perspective. In study and in communion with colleagues and his own ideals *he must renew the vision of his calling*. He must gain from each class activity the satisfaction of making effective citizens; from each pupil-contact, the joy of shaping a life; from each teacher-pupil friendship, the thrill of influencing eternity.

***To Those Who Would Improve Health.***

In every living person change is continuous.

In the presence of another, change is accelerated.

If, in a group, one person has vision and tries intelligently to guide this change toward realizing this vision — he is a teacher.

If his vision is that of happy people possessing strong bodies, unhampered by preventable conditions and if he is willing to discipline himself that he may effectively devote his energy toward making his vision a reality on this earth, he may call himself a health educator.

If he finds simple joy and satisfaction in doing this he will be an inspiring teacher.

The grandchildren of the pupil who has been inspired by a good teacher will be different because of his teaching. Though they may never identify him to sing his praise, their changed life is in truth the immortality of the teacher. Thus in his pupils the teacher is extended even as in himself he finds the likeness of the one who taught him.

A pupil wants to be like the teacher he admires—and before he knows it he is like him. This is often not what the teacher was talking — it is more often what the teacher was living.

Would that I had the insight and intelligence to guide change which will lastingly contribute toward the realization of my vision for health education.

—ARTHUR H. STEINHAUS.