PSYCHOLOGY

Break a Habit by Practicing It

Thumb-Sucking, Typist's Errors, and Poor Golf Shots Cured by Intentionally Repeating Them, Psychologist Finds

By MARJORIE VAN de WATER

PRACTICE makes perfect.

This saying, which used to be written and tediously re-written in copybooks, has now been given an entirely new interpretation by a psychologist who has developed a novel theory of learning and habit formation.

Practice may make for perfection, says Dr. Knight Dunlap, of Johns Hopkins University, but not necessarily perfection in the thing practiced.

The human mind works in a paradoxical fashion in learning, he has found. The boy can best improve his handwriting not by "practicing" the perfect copy as the teacher has placed it on the blackboard, but by concentrating on his own natural errors.

Bad habits can be broken by deliberately practicing them at definite times and under proper supervision. Stutterers can be cured by having them consciously and deliberately imitate their own faulty speech. Typists can eliminate persistant transpositions of letters by "practicing" the error. And the best memory system is to try to forget.

These are just a few of the new ideas expressed by Dr. Dunlap in his book on Habits; Their Making and Unmaking (Liveright). They do not fit in with the older theories of learning by association or repetition. They will undoubtedly be disputed by some psychologists and by some laymen.

But they do fit in with the commonsense observations of the "contrary" nature of humans.

"It is true," Dr. Dunlap says, "that some habits are apparently formed by repetition. By repeated smoking, we form the smoking habit. By repeatedly speaking in a certain way, we may acquire the habit of speaking in that way. But it becomes more and more clear that in many cases the habit of acting in one way is really formed by acting in another way."

So, while you are learning a skill you may be practicing a gradually improving set of unskillful, or "wrong" movements. As an example Dr. Dunlap cites the person who is learning to drive an automobile.

"Day by day the type of performance changes; that is the indication that one is really learning. If the process goes far enough, a fixed or stereotyped performance may be reached. But learning has occurred even if the process be discontinued before that point. In learning to drive an automobile, certain minor operations of control of pedals and gear shift become stereotyped; but the proof of most efficient learning is found when one reacts properly in an emergency which has never before been presented, in which the appropriate reaction has been truly learned."

There is another old saying—that we learn through our mistakes. This has received scientific confirmation in Dr. Dunlap's findings. While the bride is learning to cook, her methods and results are different from her later attainments. Yet the learning proceeds.

Skill from Dub Shots

And so it is too with the golf player, the tennis pupil, and the man learing to swim. You don't begin your learning with your first perfect stroke. By that time you have already accumulated considerable skill through the process of practicing dub shots.

Then, too, you may learn one thing by practicing something entirely different. The accomplished musician may be able to play on sight the piece of music you put before him. The work is quite new to him, he has never seen it before, yet he has learned it through practicing many other pieces by other composers.

And there is still another way by which you can learn one thing by doing another—you can assist yourself in learning a skill by thinking about it and planning in your mind how you will make your movements. Dr. Dunlap says:

"The billiard pupil profits immensely by having the theory of shots explained to him. His thinking is really a response or series of responses, but it is a response of a type different from that of making a shot. So also, the man learning to dive makes progress through planning, or thinking of the proper performance before attempting it.

"Actually, such combinations of thinking and perceptual response in 'motor' learning are not exceptional. In almost all learning processes thought is an important factor, and in many learning processes it is the essential factor.

"Learning, then, proceeds through responses, which may or may not be similar in type to the responses which are ultimately learned."

Dr. Dunlap does not, however, hold that a general "training" of the mind will aid you in learning particular skills or school subjects.

"'General training,' like the 'average rat' is a fiction," he says. Experimental work on learning has shown that the results of practice in any line are most conspicuously demonstrated in that very line. Conversely, to obtain the best training in any line, one must study that line if possible.

"One best learns mathematics by studying mathematics, not Greek. One best learns German by studying German, not French. One best learns tennis by practicing tennis, not golf . . .Hence the primary basis for the selection of subjects for study today is the need for, or advantage of, knowledge or skill in these subjects."

In this Dr. Dunlap disagrees with those who have urged the study of the classics, especially Latin and Greek, on the ground that they train the mind and fit it to deal more efficiently with other matters, much as gymnastics might fit the body for other physical tasks.

He does not, however, hold that there is no transfer of learning from one sub-

RADIO

HEAVYWEIGHT HYDROGEN

by

Prof. Harold C. Urey

—of the Department of Chemistry of Columbia University.

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DR. KNIGHT DUNLAP

—Professor of Experimental Psychology at Johns Hopkins University, sets forth a new theory of learning and habit formation.

ject to another. He points out the need of further experimental study of this problem. It may be that learning a poem will help you later when you want to memorize a shopping list, but then again it may hinder you. Psychologists cannot at present tell you.

They do know that when a rat learns to find his way through one maze it interferes with his learning of another. But the minds of human beings are not so easily studied as are those of rats, and neither are their actions so consistent.

These views on the effects of practice in learning, while they are new, are not so revolutionary as what Dr. Dunlap has to say about forgetting, or un-learning, or the breaking of habits.

He has introduced a new term into psychological literature—"negative practice." An undesirable habit can be broken, he says, by "negative practice."

Among the habits which can be broken in this way are those known to psychologists as "tics." If you look about your family and friends you can observe any number of these annoying habits sometimes known as mannerisms. It may be pulling at a moustache, twisting of the face, sucking at a tooth, jingling the coins in trousers pockets, rumpling of the hair, beating a tattoo with the finger tips, or biting the hair or fingernails, or thumb-sucking.

It is easy to see them in your friends, but not so easy to see them in yourself. For they are usually completely automatic, and often unconscious.

"Thumb-sucking is an infant habit which is especially pernicious, for although it disappears in later childhood, it is a difficult habit to break during the first few years of life, and many of the methods and appliances which have been applied in the attempt to "cure" the habit produce other bad effects. The thumb-sucking is indeed a symptom of a basal condition which is theoretically easy to adjust, but which, for economic reasons, is often practically difficult.

"Thumb-sucking is in almost every case the result of bad social treatment of the child during the first year of life. It is a sign that the child has been not adequately socially stimulated. The child which is handled in the way which has been recommended by some influential physicians is especially apt to become a thumb-sucker.

"This method, which has sometimes been called 'scientific' is systematic neglect of the child, camouflaged under the guise of 'science' to relieve the parent's feeling of guilt. . . .

"The baby which is neglected does in the course of time adjust itself to its unfortunate environment. Such babies become 'good' babies, and progressively easier to neglect. Such procedure is no more justified by these results than is the method of keeping the baby mildly drugged.

"The baby should not be allowed to cry, or rather crying should be minimized, and never allowed to continue long.

Play With the Baby

"The baby should be allowed to amuse itself only for short and carefully controlled periods. It should be amused during practically all of its waking time.

"So far as possible a baby, or a child of any age, should be prevented from lying in bed awake.

"Of course, keeping the baby happily stimulated during its waking periods, and preventing crying, while not 'spoiling' the child, is a difficult task, too difficult, perhaps, for the intelligence of many parents. Spoiling a child, however, is a minor evil; neglecting it is a major one."

As soon as they are old enough to really want to stop the evil habit—and Dr. Dunlap has had good success with five-year-olds—thumb-sucking children can be cured by daily practice of sucking the thumb.

Success of the same sort has been obtained with nail-biters even when the habit has persisted into the college years.

Nail-biting is often so savage that no one would have the heart to prescribe biting of nails to quite the extent that is done in the involuntary habit.

Every Case Cured

In treating it, therefore, Dr. Dunlap merely directed biting the nails in two daily ten-minute periods without stressing the need to make it as savage as the involuntary habit. Yet the biting habit was broken in every case.

The same treatment has been successful in breaking up many different kinds of undesirable social and personal habits, including even bad sex habits, but the latter should be treated only under the direction of a psychologist.

This idea of negative practice is also involved in learning and remembering, and Dr. Dunlap has developed some new rules to be followed by those who wish to "improve their memories."

In the first place, he says, the volume of material memorized does not of itself increase the ability to memorize. In fact, burdening of the mind with all sorts of unnecessary material is really a handicap in the learning of what is useful.

It is actually profitable not to remember some things. For example, Dr. Dunlap points out that your enjoyment of movies and books would be considerably greater if you did not remember the plot and details of previous pictures or novels. It is necessary to make a wise selection of what you really want to know, and in this you should be guided by your vocational and avocational interests.

Most persons have no need to know large numbers of telephone numbers, or the spelling of difficult and unusual words, or the dates of historical events. You can always provide yourself with a directory, dictionary, and other reference books, and remember only where to find the information.

Neither should you remember things longer than they are useful. Having in your mind the number of last year's license tag for your automobile is just a nuisance if this year's number is different.

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A three-ton hippopotamus is considered a big fellow, but one hippo in the London Zoo tipped the beam at four tons.