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ABSTRACT

Several questions regarding the frequency and motivation of adult learning are examined in light of findings from several research studies. Focus is on highly intentional learning which is not part of formal course work: a series of time-consuming episodes in which the person's primary intention is to gain certain definite knowledge and skill. Findings are reported which indicate that about 90 per cent of all women and men initiate and conduct at least one major deliberate learning effort a year (five on the average), only 20 per cent of these are professionally guided, and that intentional self-planned learning is at least as important, relevant, and useful to others as professionally-taught groups. The author outlines a useful way to identify why people learn through examination of the benefits a person intends to obtain through the learning effort. He discusses findings which indicate that a variety of reasons is always present and that the decision to learn is often voluntary, self-initiated, and proactive even if the task or responsibility for which the new knowledge or skill is used is not voluntary. Survey results are cited to show that demographic variables (previous education, age, socioeconomic status, race, sex) have little or no influence on the choice to learn. In the final section the author notes that most learning efforts are good, but some are harmful. He suggests ways to encourage people to learn things that are beneficial to others. (JT)

CHOOSING TO LEARN

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People spend far more time at highly intentional learning than our stereotypes suggest. We often think of people as unmotivated to learn. Instructors and others are forever crying, "How can I motivate these people to learn? They're just not interested." Yet recent interviews, relying on probing and leisurely listening, have found that men and women do a remarkable amount of highly intentional learning.

Note that I am talking here about highly deliberate learning: a series of time-consuming episodes in which the person's primary intention is to gain certain definite knowledge and skill. Concomitant and incidental learning are not included. I am not talking about "learning from all of life" -- only about very special episodes in the person's life that are dominated by the goal of learning.

This paper will examine various facets of why people choose to learn. What benefits do they anticipate? What conditions foster the choice to learn? Does learning contribute to the wider society or just to the learner?

First, though, let's look briefly at just how common and widespread this learning really is.

About 90% of all women and men initiate and conduct at least one major deliberate learning effort a year. On the average, they conduct 5 quite distinct learning efforts per year; many persons conduct as many as 10 or even 20.

An adult learner spends an average of 100 hours per learning effort -- a total of 500 hours per year. Almost 10 hours a week! These figures come from a review (Tough, 1979, postscript) of 20 surveys of major learning efforts among a wide range of adult populations.

Just for the fun of it, what do these figures mean if we add up all the time spent at highly deliberate learning by all the men and women in the United States and Canada put together? They mean that each day they spend 150,000,000 hours at learning. They mean that each year they spend the equivalent of 7 billion working days at learning.

These figures are quite startling because they shatter our stereotype of people as lazy, uninterested in learning, or too busy to learn. The stereotype is simply wrong.

The stereotype arose partly because we all confuse learning and professionally-led classes. When you estimate the amount of adult learning in our society, you probably think only of classes and courses. You can't recall many instances in which you or your friends attended a course recently, so you conclude that deliberate adult learning is fairly rare.

Suppose, instead, that you were to interview yourself and your friends carefully. You want to get beyond the

quickly remembered courses, and discover whether people also deliberately learn in other ways. So you conduct leisurely interviews, probe creatively and exhaustively to help trigger recall, and give the person plenty of time to remember. What happens then is quite astounding! A dramatically different picture appears.

It turns out that only 10% of the adult's learning efforts occur through courses, classes, and workshops led by professionals. Another 7% are guided by a professional helper in a one-to-one situation and 3% are largely guided by professionally-prepared materials. All in all, then, only 20% of the adult's learning efforts are professionally guided.

By contrast, 73% of them -- the more difficult ones to recall -- are self-planned. They are planned and guided from one learning session to the next by the learner, not by someone else. Another 7% are planned by peers, either in a group or in one-to-one interaction, giving a total of 80% of all learning efforts planned by non-professionals (Tough, 1979, postscript).

Surveys have found that intentional self-planned learning is at least as important, relevant, useful to others, and successful to others as professionally-taught groups (Tough, 1979). It turns out that adults are remarkably capable of choosing, planning, and conducting their own learning.

It also turns out that self-planned learning is not nearly as solitary an approach as one might think at first. On the contrary, in each major learning effort the person obtains information, advice, encouragement, and other help from an average of 10.6 other people (Tough, 1967). We did not find anyone who got help from fewer than 4 persons, and the number of helpers was as high as 27 in one learning effort and 31 in another. Self-planned learning may well involve more human interaction than classroom learning does!

Why Do People Begin a Learning Effort?

Why are learning efforts so common and widespread? For what reasons do people choose to spend 500 hours a year at five distinct learning projects? What benefits do they anticipate and obtain?

There are many other ways in which a man or woman could spend the hundreds of hours devoted to learning. Some of these ways would provide more pleasure or income than the learning projects. Instead, the person spends several hundred hours a year at learning. Why?

The question of why men and women learn is extremely important: it is hard to develop better help or effective public policy for adult learners without understanding their reasons for learning.

A complete picture of why adults learn requires many approaches, focusing on various aspects. Even understanding completely why one particular person begins one particular learning effort is an enormous task. The person may anticipate a variety of benefits from the learning effort. The decision to learn might also be influenced by the person's childhood, basic personality characteristics, long-term goals and responsibilities, strong hidden irrational forces, and environment.

From within the total range of approaches, I have found it particularly useful to look at the benefits that the person intends to obtain through the learning effort. These desired outcomes are present in the person's conscious mind when deciding to begin or continue the learning.

Some of the intended benefits are immediate; others are expected to result from a chain of consequences. The benefits are not only intellectual and material: many are emotional or psychological.

There are several reasons for choosing this portion of the total picture -- for focusing on the consciously anticipated benefits.

First, many interviews have indicated that the anticipated benefits constitute a significant portion of the person's total motivation for learning. Though subconscious forces deep within the person and the external environment affect

the decision to learn, in most learning efforts the person's clear anticipation of certain likely benefits is even more important.

Second, the appropriateness of this approach is supported by a certain view of humankind that is becoming more widespread in psychological literature. According to this view, people can be active, energetic, free, and aware. They often choose their goals, direction, and behaviour: they are not always pushed and pulled by the environment and by unconscious inner forces.

Third, I am particularly interested in highly deliberate learning efforts in which the person is fairly clear on just what knowledge and skill is to be learned. Consequently, it makes sense to study just what conscious reasons the person has for wanting that knowledge and skill.

People begin a major learning effort because they anticipate several desired outcomes or benefits that are interrelated. Figure 1 shows the various possible chains of positive consequences that a learner might anticipate. It summarizes the various benefits that might motivate a person to begin a learning project. The various routes or chains of events show the possible relationships among these benefits. An arrow means that the item at the tail produces the item at the head of the arrow. At this stage, you can ignore the numbers on the diagram.

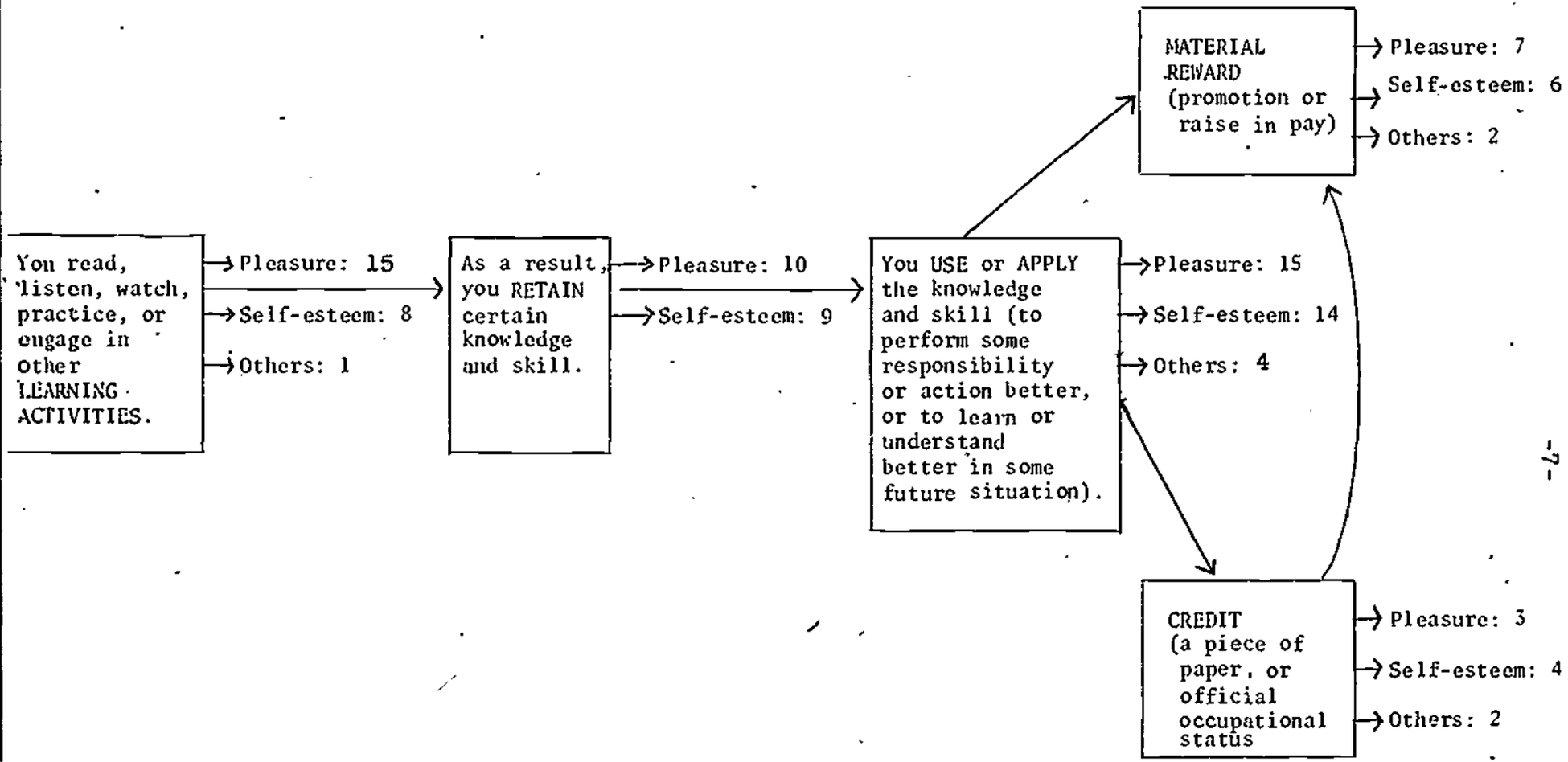

Figure 1. The person's anticipated benefits from learning.
(Percentages of total motivation. N = 100)

On this diagram, the word pleasure is a convenient shorthand term for describing a large cluster of benefits. It can include an increase in happiness, satisfaction, enjoyment, or feeling good -- or avoiding some unpleasant feeling.

When we asked people to apply this diagram to one of their learning efforts, we explained that the shorthand term self-esteem means "you regard yourself more highly, feel more confident, maintain your self-image, or avoid damaging your self-esteem."

We explained that the word others means "other persons regard you more highly, praise you, like you more, feel pleased with you, or feel grateful to you."

The numbers in Figure 1 come from a study conducted by David Abbey, Larry Orton, and me at the Ontario Institute for Studies in Education (Tough, Abbey, & Orton, 1979).

Exactly 100 adults were asked to choose one major learning effort still in progress. They were asked to imagine that their total motivation for continuing that project at the present time was equivalent to 10 motivational units. They were then asked to distribute their 10 units in whatever way would best represent their actual reasons for learning.

The typical person put one or more motivational units in 5 of the 14 possible locations. Both the mean and the median were 5. Clearly, then, the motivation for beginning and continuing a major learning effort is usually quite

complex. A mixture or variety of reasons is almost always present. It is fairly rare for an adult learner to be motivated by only one or two desired benefits. Only 4 of the 100 persons in this study said they were motivated by just one benefit, and only 10 anticipated just two benefits.

This finding points up the inappropriateness of trying to generalize too much about why people learn. If each person begins each learning project for a diversity of reasons, it is clearly absurd to attribute some one reason (such as money, credit, job, or love of learning) as the exclusive motivation for all adult learning.

The 100 persons distributed 10 motivational units each, giving a total of 1,000 units. The numbers in Figure 1 show the percentage of the total units allocated to each benefit. In other words, it shows the percentage of total motivation that is typically accounted for by each possible benefit.

How voluntary, self-initiated, and proactive is adult learning?

This is an important and often discussed question.

For a moment let us set aside learning that is motivated largely by the desire to use or apply the knowledge and skill in some situation. Instead, we will turn first to learning that is motivated largely by the pleasure and self-esteem flowing directly from performing the learning activities or

retaining the knowledge and skill. This is represented by the two left-hand boxes in Figure 1. In 45% of all major learning efforts, these two boxes account for at least half of the total motivation (Tough, Abbey, & Orton, 1979).

This sort of learning effort will almost always be quite voluntary, largely self-initiated, and proactive. It is hard to imagine otherwise. If the person was forced to perform certain learning activities, this would show up in the "others" arrow from the first box. For example, compulsory sitting (more euphemistically called "mandatory continuing education") would fit here. But in fact that arrow accounts for only 1%. And it simply is not possible to force someone to try to retain certain knowledge and skill (because this is an internal matter) without some sort of test or examination, which automatically moves us over to the right-hand side of Figure 1.

So far, then, we see that much adult learning is highly voluntary and self-initiated. It is common for a man or woman to be thoughtful and powerful in choosing and initiating a major learning effort.

Let's turn now in some detail to an even more common sort of learning. In this learning, the person wants to use or apply the knowledge and skill. This is half of the total motivation in 15% of all major learning efforts, and is over half in another 55% (Tough, Abbey, & Orton, 1979). In short, in 70% of all learning efforts, at least half of

the anticipated benefits flow from the three right-hand boxes in Figure 1.

Each of these learners could foresee some situation in which greater knowledge and skill would be of some use. They wanted to raise their children better, perform some task on the job, pass an examination, make or repair something, plan or decide or recommend something, or teach a class, for instance.

The learning, then, was to be used or applied while performing some task or responsibility. Before moving on to examine this learning, let us first note whether the task or responsibility was voluntary, self-initiated, and proactive.

Sometimes the answer is clearly yes. The person may freely take the initiative in choosing to play some new sport or musical instrument, to switch to a new career, to take a trip abroad, to raise children, or to teach Sunday school.

Other tasks or responsibilities are clearly assigned to the person with little or no choice. The most common example is an assignment on the job. A woman working for a children's aid society was suddenly assigned her first battered child case. At that moment she knew very little about the correct legal procedures for taking the child into custody and had little skill in handling such parents.

The various situations in which we intend to use our knowledge and skill probably fall along a continuum. At one

end would be freely chosen activities from a wealth of options. At the other end would be compulsory situations: if we do not perform well in them, the impact on our income, body, or self-esteem would be disastrous. Many situations fall somewhere between these two extreme ends of the continuum.

Now we have reached the point at which the person faces some particular task, responsibility, or situation. We can now turn to the question of why the person bothers to spend time learning. Why not simply go ahead with the task itself? An early study (Tough, 1968) hypothesized four possible reasons. One possible reason for learning before acting was simply that the person could not have completed the task at all, even at the lowest possible level, before learning. I find it fascinating that this turned out to be very rare -- only about 5%. That is, 95% of those who learn in order to use the knowledge and skill could have performed the action, at least at a low level, with the knowledge and skill they already possessed. A second reason, learning because that is the person's habitual unthinking way of approaching a task, was also rare. By far the most common reason is the desire to perform above the bare minimum level. The person wants to perform at a higher or more successful level, or produce a better recommendation or product, and learns in order to do so. As we can see in Figure 1, the higher-level performance may be sought because it will produce immediate pleasure or self-esteem, or because it will, in turn, lead on to credit

or some material reward. Along with this reason, a fourth reason for learning occurs in several of these same learning efforts: the person calculates that it will be faster in the long run to learn before doing. The time spent learning will be less than the time saved while actually performing the task or responsibility.

In short, then, most learners feel capable of performing the responsibility or action without any learning at all. But they decide to learn in order to perform more efficiently or successfully than they could without learning. In a sense, then, the decision to learn is often a voluntary, self-initiated, proactive choice even for a task that is not.

In the 1968 study we also asked when and how the person became aware that learning was necessary or desirable in order to achieve the action goal. The typical person said that as soon as the action goal was set, or at least before actually beginning to work toward it, he or she was aware that it would be necessary or desirable to spend a fair amount of time learning. For most of these people, the need for the learning was immediately obvious, though a few were not especially aware of it until someone told them.

A few individuals, however, did not fit this typical pattern. They did not become aware of the desirability of learning until they had actually tried to achieve their action goal without learning. One of these persons, while teaching a secondary-school course in family living, became

aware of the possibility of teaching the course better if she spent some time learning. Another person could see certain things that were wrong or inefficient in her work with publicity through various media. Another person did not have enough knowledge to give a good answer when asked a question by his superior. One woman became especially aware of her timidity and lack of coordination when she tried driving a car, and another realized while sewing simple things that much learning would be necessary before making complex things.

It is interesting to note the chronological sequence of learning episodes and action episodes. In learning episodes the person's primary intention is to learn; in action episodes it is something else, during which the person will use or apply the learning. About half of all learners learn a great deal (through several learning episodes) before using or applying it much. The other common pattern is the frequent alternation of learning episodes and action episodes throughout the project: learn and then apply, learn and then apply, and so on.

It is also interesting to note who or what determines when each especially important use of the knowledge and skill occurs. Two patterns were common in the early study (Tough, 1968). First, many learners had determined this almost entirely themselves, though usually having to stay within certain limits. That is, each had decided when to fit the

uses into leisure time or on-going responsibilities. Second, several other persons reported that someone else had been the primary determinant. That is, a deadline had been set by someone else, or the date of the application situations were fixed by someone else, or a task was assigned by someone else and had to be completed as soon as possible.

Let us at this point recall our initial question in this section. How voluntary, self-initiated, and proactive is adult learning? Much intentional learning is motivated by the desire to use the new knowledge and skill in some task or responsibility. These responsibilities range from freely chosen to highly coerced. With a freely-chosen use, a person will often be aware (at the time of choosing) that much learning time will be part of the total activity. Even with imposed tasks, however, the person often has a fairly free choice of going right ahead and performing the task at a barely satisfactory level, or learning first in order to perform better or more successfully.

How influential are demographic variables?

Most surveys of participation in adult education find that such factors as previous education, age, socio-economic status, and possibly race and sex strongly influence the participation rate. A relatively high proportion of people in adult education classes are well educated, young, and middle class.

When one turns to participation in adult learning, a remarkably different picture emerges. Demographic variables have little or no influence on the choice to learn. In other words, poor people with little formal education do plenty of learning, but they do it on their own or with peers instead of in adult education classes.

For a national survey, 1501 adults were interviewed across America (Penland, 1977). This is by far the largest survey to probe successfully for self-planned learning efforts as well as group learning. Consequently the effects of demographic variables are likely to be particularly clear cut. Penland used four dependent variables: probability of at least one self-planned learning effort; number of these efforts; hours spent at them; and probability of course-type learning. In general, these dependent variables tended to increase with younger age, higher level of completed formal education, higher income, higher social class self-identification, and among women (Tables 50-53 in Penland). Blacks tended to be more involved in formal courses and whites in self-planned learning. Although most of these relationships were statistically significant at the .05 level, the magnitude of the difference was generally small. The demographic variables accounted for only a small portion of the variance in the dependent variables.

Inspection of Penland's Tables AA through AX, presenting data from 24 independent variables, further emphasizes that

differences among learners and non-learners are not particularly striking. There certainly are differences, but the magnitude of the difference is rarely very large. In participation in learning efforts during adulthood, there does not seem to be any large imbalance, any grossly underrepresented group, nor any particular unfairness or injustice.

A re-analysis (Froomkin & Wolfson, 1977) of the U.S. government's 1972 survey of adult education also indicates that even in courses, the lack of participation by certain groups is highly exaggerated by many adult educators. Especially if one looks at the number of hours spent in courses, instead of simply counting the number of courses themselves, various demographic differences fade away. Over half of all course hours were taken by the half of the population that had not attended college. Persons below an income of $5,000 (in 1972) represented 20% of total course hours compared with 23% of the adult population -- hardly a staggering difference. For persons over $15,000, the two respective figures were 17% and 15%.

Are all learning efforts good, or are some harmful?

Most learning efforts are good. For example, the first basic survey of the total range of major learning efforts found that people are generally quite enthusiastic about

having their new knowledge, skill, habits, or other changes (Tough, 1979, chap. 8). On a scale from 0 to 10, the typical learning effort was about 7, except that learning in a group was rated 6.

That study also asked about the usefulness and importance of the learning effort for other people in the world. "Let's set aside your own benefits for a moment, and look at any benefits for other people. Your new knowledge or skill might have been of some benefit to your family, your friends and relatives, your boss, your company or organization, your field, or even to people who live in other places." On a scale from 0 to 10, the mean for self-planned learning efforts was 5.5 (though the mean for learning in a group was only 3.9, with a median of 5.0).

Many examples come to mind. One woman whom I interviewed was active in several community organizations, and set out to learn how to chair meetings more effectively. Her husband was later elected to a local school board and then city council: he carried out several learning projects on the various issues requiring his vote. Full-time politicians, too, spend a large portion of their time at proactive learning concerning current issues and decisions. We noted this in our two interviews with mayors of large cities, but it is also evident in the day-to-day activities of any president of the United States. Finally, almost any major project for urban change, innovative services, organizational renewal,

or other social change will entail a huge amount of highly deliberate individual learning if it is to be successful.

In general, then, it seems clear that highly intentional learning is beneficial not only to the learner, but also to the wider world -- to the learner's community or family or employer.

At times, though, it is quite possible for learning to be harmful, even when it is freely chosen and highly intentional learning. This can occur in five different ways.

First, it is possible to spend too much time at learning. This could mean that there is not an appropriate amount of time left for other important areas of life. For example, the person's family or job could suffer because of the time spent at learning. It is also possible to prolong the learning stage of a particular project in order to postpone the decision or action stage unduly.

Second, the knowledge and skill and other changes that result from learning may turn out to have some harmful consequences for the learner, at least over the short term. If you gain some skill or knowledge that is in wide demand, you may be asked to spend a great deal of your time helping others. If you reach a high level of mental health in the sense described by Abraham Maslow, you may also experience deep sadness because you can so readily see how the world could be improved. If you study the liberal arts intensively, you may decide to quit your narrow job. If you change your

own views and your way of relating to other people, you may find increased distance between you and your spouse, parents, or friends. The most poignant description of this occurs in the last few pages of Journey to Ixtlan by Castaneda (1972). Because he has changed so much, don Genaro cannot find his way back to his home town of Ixtlan and the people and things there that formerly meant so much to him. He could physically find his way back, of course, but he experiences agony and loneliness because he would no longer be able to make contact with formerly familiar friends and surroundings. The book closes with anthropologist Carlos Castaneda being crystal clear on the next appropriate step in his own pursuit of knowledge, but deciding literally to turn his back on that step.

Third, if people choose to read certain materials or listen to certain speakers, they may develop prejudice and hatred against a certain group or nation.

Fourth, some people may gain power over others, or a financial advantage, by learning certain knowledge and skill and then withholding it from others. Even some adult educators, staff development experts, medical doctors, and lawyers refuse to help their clients learn certain basic principles, techniques, and knowledge for their own use.

Fifth, new knowledge and skill can be put to harmful, bad, or evil uses. For example, one can work hard at developing skill in stealing pocket-handkerchiefs (Oliver Twist was well taught by Fagin), safe-cracking, white-collar

crime, political assassination, terrorism, torture, spraying the landscape with harmful substances, fooling the public, electronic surveillance, running a concentration camp, waging war, industrial spying, and sabotage. Unfortunately, such learning efforts can increase the person's power and effectiveness in performing harmful actions. The learning effort becomes a means towards an end that is harmful to certain other persons.

Incidentally, harmful learning can occur just as readily in a group with a designated teacher as it can in a self-planned effort. Some persons assume that having an expert or trained teacher in front of a group somehow guarantees that only "good" learning will occur and that harmful learning is impossible. But this simply is not the case.

How can we encourage or force people to learn things that are beneficial to others?

It is natural for us to wish that we could somehow make people learn certain things that would be beneficial to society. If we could just somehow get people to understand ecology or the causes of war, for example, perhaps the world could move towards better stewardship of natural resources and a greater likelihood of peace.

Here are three ways of moving in this direction that make sense to me, and then one that does not.

One possibility is to try to instill appropriate knowledge or attitudes in the general public through mass media advertising. Messages about the consequences of smoking, about the need to conserve energy, and about the dangers of drinking before driving are common examples. Certain groups and organizations who lack money for advertising find other means to have their message broadcast through the mass media.

A second approach is to help people make more thoughtful choices about what to learn. By helping people see their own learning patterns, and assess the power and success of their learning, we can stimulate more thoughtful choices. And any workshops or printed materials designed to help people choose their learning goals could include in their lists of possibilities the directions that seem especially beneficial for society.

Third, in some fields it makes sense to test whether certain persons have gained the basic minimum of knowledge and skill. This should be done, of course, only if a completely adequate test -- fair and comprehensive and unbiased -- can be developed. It is also important to be sure that the test standards are not unnecessarily high. Examples of areas in which tests are already being used, or perhaps could be used, are driving a car, having enough knowledge to become a naturalized citizen, being competent as a professional helper in the health sciences or mental health field, being sufficiently competent and free from

potential violence to have a child. Also, persons convicted of drunk driving might prefer to try to change and then demonstrate that change instead of going to jail.

Compulsory sitting is the one path that rarely makes sense to me. It is becoming all too common to force people to sit. They must attend a particular course for a certain number of hours, or suffer severe consequences. If they are very lucky, they are allowed to choose from a range of courses, but sitting in them for a certain number of hours is still compulsory. In certain health fields and other professional fields, a person must acquire a certain number of "continuing education units" in order to retain a licence: no assessment of what they learn in these classes is required. Research has clearly demonstrated that almost every professional spends an enormous amount of time at job-related self-planned learning efforts. Surely we should give credit for these, instead of giving credit merely for sitting in certain rooms at certain times. Even better would be the development of adequate assessment procedures to test the person's competence periodically.

Adolescents and Children

Many of the thoughts and statements in this paper apply to the out-of-school learning of children and adolescents as well as to adults. Interviews with 10-year-olds and

16-year-olds have found that they, too, are doing a great deal of learning that is not related to their schooling (Tough, 1979, chap. 3). This youth learning, like adult learning, is more often self-planned (with help from friends and family) than in a group with a teacher. Youth learning, too, is usually (but not always) self-initiated, proactive, competent and successful, enthusiastic, and beneficial.

As I watch my own 11-year-old and 15-year-old plan and guide their various learning efforts, I find less and less meaning in the claim that there is some large and crucial difference between the adult's and the child's efforts to learn.

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