

The Nurture of Nature

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PROFESSOR Hans Furth of Catholic University thinks that in the early grades we put 'way too much emphasis on teaching reading. His reason may surprise you. It is not that reading is unimportant, but that *learning to read is such a low-level cognitive exercise!* He proposes a "school for thinking," because building the power for knowing pays off better than implanting the knowledge itself.

Forgive me, Hans, for so crude a summary of your complex ideas. But your proposal epitomizes a perception of human intelligence that is gathering such intensity it may revolutionize education. The basic fact is known: Whether you study mice or rats or dogs or monkeys—or people—you find that "intelligence" is not a passive, static thing; it grows out of the potentials of the organism interacting dynamically with the potentials of the environment. Whatever may have been born into the organism to begin with, its development can be held low by a barren environment or pushed high by rich opportunity. That much is known. And in a human being the range between the possible low and the possible high is very, very great.

Knowing that much, we move naturally to the fundamental questions: How can we shape the environment to potentiate whatever the child was born with? Rather than merely tool up a child at the current level of his "native intelligence," can we plan a campaign to change the level of that "intelligence" itself, to increase the power to learn and to know? The best of modern psychology says we can—and there is no greater message of hope in the educational world today. Now it is up to us teachers to figure out how to do it, and that is what this issue is all about.

For several years I have been keeping one eye on the developing evidence, and I should like to risk a few more-or-less educated guesses on the way things will go.

The easiest time to create big gains is when the child is very young. Therefore, I think, our first target must be the parents, especially the mother. For one thing we must effect a partnership between education and the health services, so that even in the prenatal period the mother has good nutrition, including essential minerals and vitamins, and so that the baby is properly fed and cared for. We have the resources to teach young parents (in advance, while they are in our schools, but also whenever they

need us), but we need an alliance with other specialists. For another thing it will be essential to teach parents how to play with their infants, how to talk with them, how to arouse and stretch their minds. Games and talk are no mere pleasant incidentals; they can get enormously important learnings going during the sensorimotor period and when the child is beginning to talk.

Inevitably there will be a fundamental decision as to how early the school should enter the picture. There will be a clash between our ideal of keeping the child in the home and our anxiety about the damage done by homes that perform poorly. My guess is that we shall come to some form of schooling around age three. My hope is that we can tie this closely to the parents and teach them as we begin to teach their children. With a little time at school under the supervision of experts—and much more time with parents who have been taught what to do—we can greatly sharpen sensory perception, stimulate active encounter with the resources of the environment, enrich vocabulary and the use of symbols, and lay the foundations of a simple logic. And all this can be done in an aura of affectionate fun, accompanied by really good physical care.

The immediately ensuing period has already had considerable attention, in nursery schools, in Operation Head Start, and so on. Great technical questions remain to be solved. But it is probably the period of least hazard, if only we universalize prekindergartens as well as kindergartens.

But then the trouble starts again! As Furth might put it, we get utterly preoccupied with teaching reading—and arithmetic, and, a little later, geography and whatnot. We grow a bit grim. The older child's time is too important for fooling around. There is subject matter to be covered.

Power for Knowing

If we really believe that we can improve the power for knowing as well as the stock of knowledge itself, we are going to have to change that radically. Furth's "school for thinking" may provide one model. The "discovery" and "inquiry" approaches certainly have much to offer. But we may easily become too verbal, too abstract, too separated from reality. We have much to learn about maintaining an alert sensory push. We need to go on sharpening visual, auditory, olfactory, and tactile acuity—the tendency to *notice* and *discriminate*. We need to teach abilities to classify and reason and generalize. None of this will be too difficult to learn if we believe in the purpose.

But then comes a time of even greater hazard. Most secondary school people turn off their brains whenever the talk turns to "creating intelligence." They have been taught all too well that about half the intelligence a person will ever have is already present when he enters the first grade and most of the rest when he leaves the sixth. It's not their problem!

Yet, wait a minute! Think back to Piaget, who is the fountainhead of most of the thinking about the early years. In his own scheme of development, the stage of formal operations only begins at about the first year of the middle school. What does this mean in practice? It means that what Hilda Taba called the *higher processes* of thought are chiefly the domain of the secondary school!

If we are genuinely concerned with enhancing cognitive power, are

we going to stop with the sensorimotor stage, perceptual sharpening, and Piaget's concrete operations? That would be a curious event.

Taba did her experimental work with upper-grade children, but she never thought it would stop there. Just before her death she was busily and enthusiastically demonstrating that we can teach even the lower IQ children to reason, to study a mass of data and make a generalization, to move to a new situation and transfer or modify old conclusions, as appropriate. She was saying that you can take the "higher processes" apart and systematically teach their component parts—and then put them together. Maybe this is the level where, most of all, we need a "school for thinking."

What stands in our road? Fact-mongering, mostly.

The world is too much with us; late and soon,
Getting and spending, we lay waste our powers.

Fact-mongering is the schools' peculiar form of "getting and spending," and lays waste our children's powers. Ground to be covered. Knowledge to be accumulated. And in the meantime the essential *power* for learning barely holds its own.

Research is proving, inch by inch, that that power itself can be deliberately cultivated, with no known bounds. If this is true, it cannot be less than the most important truth in the entire cognitive domain. What particular increment in knowledge can possibly be as important as an increment in the power to know? The two are not mutually exclusive; quite the contrary! But if one had to be sacrificed, for the moment, which should it be?

What we need, at bottom, is faith in the human organism.

—FRED T. WILHELMS, *Executive Secretary, ASCD.*

ASCD Conferences in April

April 16-19, 1970. "Barriers to Humanizing Secondary Schools and How To Break Out of the 'Box.'" Sponsored by the ASCD Secondary Education Council. Will examine critically five barriers to the development of a more humane secondary school: external management, internal management, teacher-pupil relationships, concepts of students' talents and schools' goals, and design of the curriculum. *Sheraton-Ritz Hotel, Minneapolis, Minnesota.*

April 22-25, 1970. "Elementary Education: Revolving or Evolving?" Sponsored by the ASCD Elementary Education Council and the American Association of Elementary-Kindergarten-Nursery Educators. Will focus on four areas of educational change in elementary education: new patterns of urban education, organizational structure, technological innovations, and curricular changes. *Chase Park Plaza Hotel, St. Louis, Missouri.*

April 29-May 1, 1970. "Values and Multi-Ethnic Education." Fifteenth Annual Eastern Research Institute. Sponsored by the ASCD Research Council in cooperation with the Department of Supervision and Curriculum Development, PSEA (Pennsylvania). Will discuss programs and proposals designed to meet the needs of specific subgroups and individuals in view of the challenges of social change and conflict. *Benjamin Franklin Hotel, Philadelphia, Pennsylvania.*

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