



From the Editor

Douglas Sloan

New Co-directors for the Research Institute

Susan Howard, Director of the Research Institute for Waldorf Education, is leaving that position in order to take up new responsibilities as co-coordinator of the International Waldorf Kindergarten Association, a world association of Waldorf early childhood educators. Douglas Gerwin and David Mitchell will assume the role held by Susan as co-directors of the Research Institute.

It is largely through Susan Howard's insight, initiative, and diligent work that the Research Institute was first founded, and, over the years, has become a main center within the North American Waldorf movement for identifying and carrying out important research tasks of Waldorf education. Susan co-founded the Research Institute with me in 1996 in response to a call from Henry Barnes at the Association of Waldorf Schools of North America (AWSNA) Delegates meeting that year for some way to implement concerted and sustained research in Waldorf education. Susan served as co-director of the Institute from 1996 to 2000. At that time, Roberto Trostli took over for two years as the first paid (part-time) director of the Research Institute and editor of the *Research Bulletin*. In the year 2000, he was succeeded by Susan, who served as director from then to the present. In addition to her new role as co-coordinator of the International Waldorf Kindergarten Association, Susan will continue as chair and coordinator of the Waldorf Early Childhood Association of North America

(WECAN). And she will continue to direct the part-time Early Childhood Teacher Education Program at Sunbridge College.

It should be noted and underscored, however, that Susan will continue to be a member of the Board of the Research Institute, and, through her new work internationally, will help to expand concretely the connections of the Research Institute with Waldorf education world-wide. One of her responsibilities, for example, with the International Kindergarten Association (and for WECAN as well) is to work with research and publications in early childhood education. That, she says, will continue to be a major purpose of her activities on the Research Institute Board with the aim of fostering and disseminating research being done on healthy early childhood development and education.

As editor of the *Research Bulletin* and long a colleague of Susan Howard, I want to take this opportunity to express my personal gratitude for all that she has done to make the Research Institute a reality that can continue to develop and to serve Waldorf education into the future. I am also deeply grateful for all her essential advice, good counsel, and input over the years for the *Research Bulletin* (and readers would not be amiss if they hear in this a sigh of relief on my part that she will still be available as a continuing member of the Board for her indispensable editorial consultation).

2 • From The Editor

The Research Institute is especially fortunate to have as its new co-directors (taken in alphabetical order) Douglas Gerwin and David Mitchell. Both bring great wisdom and long years of experience in various aspects of Waldorf education to the leadership of the Institute.

Douglas Gerwin, Ph.D., is director of the Center for Anthroposophy in Wilton, New Hampshire. Himself a Waldorf graduate, Douglas has taught at the university level, and, for the past 21 years, at the high school level in subjects ranging from biology and history to German and music. In 1984 he received his doctorate in psychology and literature from the University of Dallas, where he also taught. Before entering the teaching profession, he served from 1972 to 1978 as foreign correspondent, editor, and radio broadcaster for Reuters News Agency in Europe.

Douglas presently divides his time between adult education and teaching in various North American Waldorf high schools. In 1994, he founded, and currently chairs, the Waldorf High School Teacher Education Program under the auspices of the Center for Anthroposophy. This program offers Waldorf teacher preparation in conjunction with Antioch University's New England Graduate School. In 1998, he helped to launch the Waldorf High School Research Project, an initiative sponsored by AWSNA and the Research Institute for Waldorf Education. The Research Project is charged with investigating changes in the nature of adolescence today, as well as initiating research related to the Waldorf high school curriculum and pedagogy. In addition to writing a number of articles on adolescence and the Waldorf curriculum, Douglas Gerwin is editor of three books related to Waldorf education: *For the Love of Literature: A Celebration of Language and Imagination* (1996); *Genesis of a Waldorf High School: A Source Book* (1997/2001); and *The Andover Proceedings: Tapping the Wellsprings of Health in Adolescence* (2002). Douglas Gerwin resides in Amherst, Massachusetts, with his wife Connie, a Waldorf high school teacher of mathematics. Their two children, now young adults, both attended Waldorf schools in the United States and Germany.

David Mitchell, new co-director of the Institute

with Douglas Gerwin, is chair of AWSNA Publications and is a member of the Development Committee. His engagement and leadership in Waldorf education has been extensive and deep. For ten years (from 1992-2002), he was on the high school faculty of the Shining Mountain Waldorf High School in Boulder, Colorado, which he helped found, teaching life sciences, Shakespeare, and blacksmithing. Before that he was one of the founders of and a class teacher for twenty years (1972-1992) at the Pine Hill Waldorf School in Wilton, New Hampshire. During much of the time in New Hampshire (1978-1992), he also helped initiate and teach in the Waldorf Program at Antioch New England Graduate School. He has held and continues to be involved in numerous leadership positions in AWSNA, and from 1990 to the present has been a member of the U.S. Department of Education Committee for Private School Leadership. David Mitchell has received recognition in several national "Who's Who" registries of outstanding professional educators. Under his editorial leadership, the AWSNA Publications Committee has become a major source of Waldorf and Waldorf-related books and other literature. David is an alumnus of the University of Massachusetts and has done graduate work at the University of Heidelberg in Germany, Emerson College in England, and the University of Oslo in Norway. He and his wife have four children and live in Boulder, Colorado.

Douglas Gerwin and David Mitchell bring rich personal and professional resources to the directorship of the Research Institute—resources that will help maintain the continuity and enable the further development of the Research Institute work established by Susan Howard and Roberto Trostli.

About This Issue

Nearly all the articles in this issue deal with various aspects of how the image we hold of the human being has direct implications for education, with specific reference to the healthy development of the young child. In this regard we are especially fortunate to welcome again two authors who have contributed to previous issues of the *Research Bulletin*, Steve Talbott and Dr. Michaela Glöckler.

Steve Talbott's article, "Science and the Child," looks specifically at the current attempts, increasingly widespread in our general culture, to produce "better children"—to "improve" children through genetic engineering and through the use of drugs to control behavior. His article, however, puts this issue in a much wider and richer context, examining the dominant, modern scientific conception of nature and of the human being. This is the view that all of life is essentially quantitative and mechanistic. Talbott examines the conceptual limitations of the mechanistic view and its fundamentally destructive consequences. He calls for the development of a qualitative science—a science of qualities—that would enable us—among many other things such as being able to deal adequately with meaning, values, life, and qualities themselves, truly to "listen to the child"—to recognize the wholeness, the integrity, and the wisdom of childhood itself. Beyond being a fascinating, critical examination of current mechanistic attempts to "improve" children, this article is foundational in every sense, showing the crucial importance for all of life and, not least, for education, of our view of the human being and our ways of knowing.

The two articles by Dr. Glöckler build a new model for approaching the questions of health and disease, a model reported by her in earlier articles of the *Research Bulletin*. This approach, given the name *salutogenesis* from the two Greek words meaning health and origins, stresses a primary concern with the conditions that promote health, rather than a dominant concern with *pathogenesis*, the treatment of disease, the latter being the primary approach to date of most modern medicine. Her first article, "Can Meditation Take the Place of Exercise?" looks at the relationship between meditation, movement, and health. Meditation cannot replace physical movement, and in young children, especially, should not. For young children, movement is essential to the full development of their intellectual, emotional, and social capacities. For the teacher, movement is, of course, also important, but contemplative practice is indispensable. Dr. Glöckler explores this relation in this article, which focuses on the stages of life and the different members of the human being.

In her second article in this issue, "Non-Verbal

Education: A Necessity in the Developmental Stages," Dr. Glöckler shows the crucial importance of non-verbal learning during the early imitative stage of the child for the later healthy and full development of the growing human being. In exploring the nature of non-verbal education, she also provides concrete indications of how one learns to educate non-verbally.

Related to the articles by Steve Talbott and Dr. Glöckler is the research report entitled, "The Lowering of School Age and the Changes in Childhood." Although this report refers to efforts of Waldorf educators in Germany to respond creatively to the growing movement there to lower the beginning school enrollment age, this report has direct relevance to the American situation where similar pressures for ever-earlier academics, along with standardized testing, which is part of this movement, continue to mount. This is a movement driven primarily by political/economic interests, not the interests of the child. The report looks broadly at the situation of Waldorf elementary schools in Germany, the changes in children now entering the schools, the challenge posed by the lowering of school age, and the developmental problems this age-lowering threatens. North American Waldorf educators should find this report extremely helpful in understanding our own situation. Furthermore, the concrete projects described in the report, projects being developed by German Waldorf educators for adequately dealing with these new pressures and changing situations, may prove helpfully suggestive to North American Waldorf educators facing similar challenges.

The article by David Adams, "Organic Functionalism: An Important Principle of the Visual Arts in Waldorf School Crafts and Architecture," will be of interest not only to teachers of applied visual arts, but also to all who are concerned with the interconnections among the visual arts, the larger architectural environment, the healthy physical and spiritual development of children (*salutogenesis* again), and the social impact which these interconnections—or lack thereof—involve. The author concludes that the "organic functional" aspect of Steiner's artistic hopes for Waldorf education have been much neglected in North America."

Some Brief Reflections on Waldorf Education as a Powerful Counterforce to the Modern Assault on the Human Being

The article by Steve Talbott in this issue has prompted these reflections on the issue he raises of the importance of the image we have of the human being and its role in education. Every educational theory and its practice imply and draw upon some image of the human being. So we must ask of every educational endeavor, “What image of the human being is at work in it, and what are the consequences?” To drastically oversimplify, Waldorf education views the human being as a wholeness of body, soul, and spirit with the potential of becoming a free, responsible, caring, and creative individual. Through its pedagogy and curriculum, Waldorf education strives to nurture that becoming to its fullest in each individual child. Unfortunately, as Steve Talbott’s article makes vividly clear, modern culture and education are increasingly dominated by images of the human being that fix and reduce the human to something less than human, to some kind of mechanistic entity.

In the preface to his recent book, *The Age of Spiritual Machines: When Computers Exceed Human Intelligence*, Ray Kurzweil, a leading figure in the “artificial intelligence” community, writes: “The primary political and philosophical issue of the next century [this century] will be the definition of who we are—of how we define human.”¹ Kurzweil has, indeed, identified one of the central questions facing us today. Kurzweil himself, however, is not simply making a neutral statement. Rather, he is contending for a specific image of the human being as a machine. Granted, his is not the old machine of wheels, gears, and cogs, but, rather, the new, streamlined, cybernetic machine of electronic and chemical reactions as information carriers. This image nonetheless depicts the human being as entirely the product of material forces, and, in effect, reduces meaning, values, purpose, the whole realm of qualities, and selves to mere reflections of material, mechanistic forces and processes.

The late Francis Crick, noted biochemist become cognitive scientist, starkly expressed this view a few years ago in the opening paragraph of his book, *The Astonishing Hypothesis: The Scientific Search for the*

Soul. Crick wrote:

You, your joys and sorrows, your memories and your ambitions, your sense of personal identity are in fact no more than the behaviour of a vast assembly of nerve cells and their associated molecules. . . . you’re nothing but a pack of neurons.²

Such an image of the human being is dominant today in many fields—cognitive science, genetic research, and much of modern medicine, to name a few. This image also permeates a good deal of popular culture, popular consciousness, and modern education. Consider, for example, this 1997 statement of the International Academy of Humanism in which Crick was joined by other leading figures, including biologists Richard Dawkins and E.O. Wilson and the “humanists” Isaiah Berlin, W.V. Quine, and Kurt Vonnegut. In justification for the scientists’ demanding a free hand in human cloning, they write:

Humanity’s rich repertoire of thoughts, feelings, aspirations, and hopes seems to arise from electrochemical brain processes, not from an immaterial soul that operates in ways no instrument can discover. . . . Views of human nature rooted in humanity’s tribal past [tribal past meaning, as they say earlier in their statement, humankind’s religious and moral traditions] ought not to be our primary criterion for making moral judgments about cloning [and presumably about anything else].³

Several observations should make us highly suspicious of such statements from the outset. In the first place, if we agree that the whole “rich repertoire” of culture is simply the reflection of electrochemical brain processes and nothing else, we have to include in those processes the thoughts and words of those who write such statements. So why should we accept the results of *their* electrochemical brain processes rather than our own? Furthermore, these statements are patently self-serving. In spite of the seemingly objective, scientific language, the clear intent is to justify unrestrained scientific and technological development without any considerations of the moral and environmental consequences. Power and profit are intimately intertwined with this supposedly scientific view.

Beyond these initial common sense responses, there are other reasons for calling into question an exclusively mechanistic view of the human being. The doctrine of the mind as simply another word for brain mechanisms means, to Crick and others, that no non-sensory, immaterial realities exist: no soul and spirit, for sure; but also no meaning, purpose, values, truth, beauty, or goodness. No ideas even. All these are, at most, a kind of illusory foam churned up by the electrochemical discharges of the human machine.

Such a view can, of course, never do justice to the reality of ideas, because ideas are non-sensory, immaterial. To be sure, most of our ideas probably arise initially in connection with our sense experiences of the physical world, but they themselves are never found among the objects of that world. Nonetheless, they can be powerful enough to penetrate that world, enabling us to understand and transform it radically. After all, it is by means of ideas that atoms are split. The fundamental power of ideas was once vividly expressed by the great mathematician Stanislaus Ulam, who was active in the Manhattan Project. “It is still an unending source of surprise for me,” he wrote, “to see how a few scribbles on a blackboard or on a sheet of paper could change the course of human affairs.”⁴ And we ought not to forget that books that reduce ideas to mechanistic electrochemical discharges are themselves presented in the form of ideas.

Furthermore, a whole class of ideas exists called ideals: truth, beauty, goodness, love, joy, patience, kindness, fidelity, and so forth. These ideas—non-sensory, immaterial through and through—are extraordinarily powerful, for, to the extent that we are able to identify with them, they change us. Machines, obviously, are unaffected by ideal, moral considerations, and neither will human beings be so affected to the extent that they allow themselves to be defined, treated, and act as machines.

Taken seriously, the view of the human being as a machine permits programming of the machine. But it means also that all actions of the individual are unfree, completely determined by the automatic operations of the machine, rather than by an at least partially free and responsible self. Since mechanical operations cannot take responsibility or be held

accountable, any conceptions of human freedom, self-directed action, responsibility, and creativity are rendered meaningless. And, yet, all of us, including those who hold to the mechanistic view of the human being, have to assume in practice that our behavior is influenced by plans, purposes, and motives, for which we are responsible. When people write books promulgating the view of the human being as mechanistically determined, they surely believe that they themselves freely write those books, even though for the purpose of persuading readers that there is no freedom, purpose, or self-determination. A theory that has to assume in practice a freedom, purpose, and self-determination denied by the theory itself would appear to be rampantly self-contradictory.

Of course, a view that denies the existence of a self that can be held accountable would lend itself to the interests of those who are eager to engineer and control nature and human beings, and, in short, to employ any technology that works to their special advantage—and to do all this at will, without restraint, and for a profit. This is a view, moreover, that undergirds the growing global conglomerate of scientists, governments, universities, and corporations that seek to exploit and control nature and human beings for their own power, profit, and prestige. Unfortunately, this image of the human—and of all life itself—permeates much modern education from top to bottom.

Over a century ago in an essay on education, Ralph Waldo Emerson said that “the surest bulwark of all that is sacred in the human being is not to accept degrading views.” Our culture and education today are shot through with degrading views and their destructive consequences. Nevertheless, the human being is—for a time at least—still human, a being of body, soul, and spirit; a being of interwoven intelligence, emotion, and intention, all capable of infinite development. This, our full human being, contains within itself the resources for countering and transforming all those forces that would reduce the human to the non-human. But we must recognize, strengthen, and draw upon this fullness of the human being while it is still possible, while there is still time. Ours is now a critical moment, for ominous signs exist that the time remaining for the fully human is seriously threatened and may be

drastically limited. This is why Waldorf education is far more important than we ourselves are perhaps even aware.

REFERENCES

1. Ray Kurzweil, *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* (New York: Penguin Books, 1999).
2. Francis Crick, *The Astonishing Hypothesis: The Scientific Search for the Soul* (New York: Scribners, 1994).
3. Quoted in Leon Kass, "The Moral Meaning of Genetic Technology," *Commentary*, Vol. 108 (September, 1999): 38.
4. Quoted in Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon and Schuster, 1986), p. 11.

