

The Weekly Newsmagazine of Science

SCIENCE NEWS

September 8, 1990
Vol. 138, No. 10
Pages 145-160



Stone Math

Living in a world of three-dimensional space, we can hardly conceive of phenomena of higher, or lower, dimension. What would a two-dimensional universe be like? How can we even attempt to picture objects of four . . . five . . . six dimensions? If we can visualize them, does that mean they are real? Such are the concepts explored in *Beyond the Third Dimension*.

Author Thomas Banchoff, a leader in the study of higher dimensions, is well-known for his creation of computer graphics that let us visualize these previously inaccessible spaces. His images illustrate how the concept of dimensions is a theme that threads its way through mathematics and into the world beyond. When we realize that a dimension does not have to be spatial, but could represent time, temperature, weight, energy or other variables, we see that it has practical significance not only in mathematics, but also in physics, geology, medicine and modern art.

Beyond the Third Dimension recounts our long fascination with extra-dimensional spaces, shapes and structures. The author first introduces the ideas of dimension and perspective in a skillful presentation of one- and two-dimensional worlds—a journey that allows us to appreciate the relationship of our world to dimensions higher than our own. He goes on to explain how geometers, scientists, philosophers and artists have explored higher dimensions through metaphor, analogy and more formal methods of coordinate geometry. And he shows how the modern graphics computer enables us to grasp concepts previously beyond our reach. —from the publisher

BEYOND THE THIRD DIMENSION

Geometry, Computer Graphics, and Higher Dimensions

THOMAS F. BANCHOFF



Science News Books

Bey3rdDim

1719 N St., NW, Washington, DC 20036

Please send _____ copy(ies) of *Beyond the Third Dimension*. I include a check payable to Science News Books for \$32.95 plus \$2.00 postage and handling (total \$34.95) for each copy. Domestic orders only.

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(used only for problems with order) RB1306

W.H. Freeman, 1990, 210 pages, 8½" x 9½",
hardcover, \$32.95



THE FAMILY GENETIC SOURCEBOOK

The *Family Genetic Sourcebook* begins with a succinct introduction to the principles of heredity, including a discussion of the history of genetics, how genetic traits are inherited, genetic counseling and the treatment of genetic disorders. Photographs, line drawings, charts and tables supplement the concise, accessible text and help illustrate the genetic mechanisms that shape our lives.

The second half of the book — "The Catalog of Genetic Traits" — lists more than 100 genetic traits, including baldness, hair color, right- and left-handedness and hairy ears, and disorders, including Down's syndrome, diabetes, heart disease, hemophilia, sickle cell anemia and alcoholism. Each entry gives a brief description of the trait or disorder and an explanation of how it is inherited. There are also instructions on constructing your own family tree.

Family members, couples planning families, health care professionals and counselors, and anyone else interested in genetics will find this nontechnical yet comprehensive guide an invaluable resource in understanding the relationships among heredity, ourselves and our families. —from the publisher

By

Benjamin A. Pierce

John Wiley & Sons, 1990, 340 pages,
6" x 9", paperback, \$14.95

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1719 N Steet, NW
Washington, DC 20036

Please send _____ copy(ies) of *The Family Genetic Sourcebook*. I include a check payable to Science News Books for \$14.95 plus \$2.00 postage and handling (total \$16.95) for each copy. Domestic orders only.

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The COMPASS in Your NOSE

and Other ASTONISHING FACTS about HUMANS



Marc McCutcheon

■ All humans have a trace amount of iron in their noses, a rudimentary compass found in the ethmoid bone (between the eyes) to help in directional finding relative to the earth's magnetic field. Many people have the ability to use these magnetic deposits to orient themselves — even when blindfolded and removed from such external clues as sunlight — exactly as a compass does.

■ The muscles of the eye get the greatest day-to-day workout, moving some 100,000 times in any 24-hour period. You would have to walk about 50 miles to give your legs the same degree of exercise.

■ Nostrils switch on and off every three to four hours — one nostril is smelling and breathing while the other closes down and rests.

■ Bone tissue is constantly being destroyed and replaced. About every seven years the body grows the equivalent of an entirely new skeleton.

■ One-fifth of our daily caloric intake is used by the brain.

■ Chocolate contains the same chemical — phenylethylamine — that the brain produces when people fall in love. By stepping up heart rate and the body's energy levels, the chemical causes a happy, slightly dreamy feeling.

— from the publisher

Tarcher, 1989, 193 pages, 9" x 6", paperback, \$8.95

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1719 N St., NW, Washington, DC 20036

CompassNose

Please send _____ copy(ies) of *The Compass in Your Nose*. I include a check payable to Science News Books for \$8.95 plus \$2.00 postage and handling (total \$10.95) for each copy. Domestic orders only.

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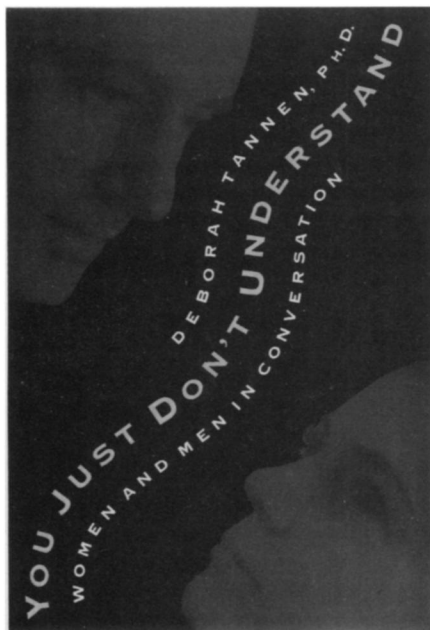
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RB1304



Why do so many women feel that men don't tell them anything, that they just lecture and criticize? Why do so many men feel that women nag them and never get to the point? In **You Just Don't Understand**, sociolinguist Deborah Tannen offers revolutionary answers to these and other questions that confound women's and men's attempts to communicate with each other.

Using stunning evidence from her own studies, Deborah Tannen shows that men and women live in different worlds, even under the same roof — so conversation between them is like cross-cultural communication. From early childhood, girls play with a best friend or in a small group and use language to seek confirmation and reinforce intimacy, whereas boys use language to protect their independence and negotiate status in large-group activities. Carrying these styles into adulthood, women and men walk away with completely different impressions of the same conversation.

Written in entertaining prose and enlivened by vivid examples and anecdotes, **You Just Don't Understand** can help us find a common language in which to achieve more professional cooperation and deeper bonds with those we love.

— from the publisher

Science News Books

YouDontUnder

1719 N Street, NW
Washington, DC 20036

Please send me _____ copy(ies) of **You Just Don't Understand**. I include a check payable to Science News Books for \$18.95 plus \$2.00 postage and handling (total \$20.95) for each copy. Domestic orders only.

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RB1302

"Deborah Tannen combines a novelist's ear for the way people speak with a rare power of original analysis. It is this that makes her an extraordinary sociolinguist, and it is this that makes her book such a fascinating look at that crucial social cement, conversation."

— Oliver Sacks, Author of **The Man Who Mistook His Wife for a Hat & Other Clinical Tales**

William Morrow & Co., 1990, 330 pages, 6½" x 9½", hardcover, \$18.95