

Harnessing Our Sensory Superpowers

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(PhysOrg.com) -- New research in perceptual psychology and brain science is revealing that our senses pick up information about the world that we thought was only available to other species, Lawrence Rosenblum, UCR professor of psychology, writes in a new book.

Blind mountain bikers use echolocation to hear rocks in the trail. A connoisseur sniffs out the world's most expensive cup of coffee. An artist whose sight disappeared as a young man paints and chooses his colors by touch.

New research in perceptual psychology and brain science is revealing that our senses pick up information about the world that we thought was only available to other species, Lawrence Rosenblum, professor of psychology at the University of California, Riverside, writes in a new book, "See What I'm Saying: The Extraordinary Powers of Our Five Senses" (Norton, 2010), published this month.

"We have hidden sensory channels we're using all the time. This enables us to perceive things, often without awareness of where we get the information," Rosenblum says. His 350-page book is aimed at getting people interested in new research on the senses. He uses numerous examples of people who have strengthened sight, hearing, smell, taste or touch - such as blind baseball players and a sommelier who can taste the vintage of a fine wine - to explain how the brain uses multiple senses and the subtlest information to perceive the world, and suggests ways to further develop those senses.

Brain-imaging and other tools have enabled researchers in the last decade to discover that the human brain is capable of changing its structure and organization - a process called neuroplasticity - as it is influenced by experience.

“It turns out that vacant areas of the [brain](#) are co-opted, and this can happen if you’re blindfolded for only 90 minutes,” he says. Removing sight as a sensory power can quickly enhance the senses of hearing, and even smell, for example.

Still, even without sensory loss, we already accomplish many of these exotic sensory skills. “We all have an onboard sonar system and a type of absolute pitch; and we all can perceive speech from seeing and even touching faces,” Rosenblum writes in “See What I’m Saying.” “What’s more, we engage many of these skills all day long. What largely distinguishes the expert perceiver from the rest of us is the same thing that gets us from here to Carnegie Hall: practice.”

Rosenblum has spent two decades studying multisensory perception, lipreading and hearing. His research has been supported by the National Science Foundation and the National Institutes of Health. He is internationally known for his research on risks the inaudibility of hybrid cars pose for blind and other pedestrians.

More information: [www.psychology.ucr.edu/faculty ...rosenblum/index.html](http://www.psychology.ucr.edu/faculty...rosenblum/index.html)

Provided by University of California, Riverside

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