

Brain of a dog much like ours

By M.B. Dillon Ward
staff writer

Dogs may be man's most loyal companions, but they're also his most underestimated chums, agree the training director of a dog obedience school in Farmington, and the head trainer at Rochester's Leader Dog School for the Blind.

"I'll admit dogs make lousy piano players, but through repetition, you can basically teach them to do anything," said Dennis Allison, who heads the Detroit German Shepherd Dog Obedience Training Club at Farmington's American Legion Hall.

There's no dog we won't accept, regardless of its breed. They say you can't teach an old dog new tricks, but you can. It just takes a little patience."

Allison has seen it happen. At the end of a 12-week class last year, a rambunctious 6-year-old German shepherd with no former obedience training achieved a ranking among the top five of her peers.

"The dogs they train constantly amaze both Allison and Lange, who teaches German shepherds, Labrador and golden retrievers to "see" for their blind masters who come to Rochester

scientific spectrum

from all over the world.

"You can't state a sentence to a dog. You can't say, 'Duke, would you take me to Sam's Restaurant?' or, 'If you see a Yellow Cab, let me know.'"

"It's all Greek to him. These are things he just can't do. But a dog will get to know key words."

A blind person who every day says to a leader dog, "let's go to work," is teaching it to associate a bus with a certain corner, Lange said.

"BELIEVE IT OR NOT, the dog by hearing that same bus over and over will get to know that particular bus."

"And this is something that theoretically is impossible, but we've had blind people tell us that after a year on a bus, the dog will start getting up and anticipating that it's time to get off. There has to be something that tips him off — a bump in the road or something. It's something that can't be put into words."

College students have told Lange their dogs get to know their schedules, classrooms and campuses.

"It's remarkable how they pick up these patterns," he said.

PSYCHOLOGISTS NOTE that the brains of dogs and humans bear considerable resemblance to each other.

"Dogs' brains have a left and right hemisphere, just like the human brain. Essentially they have the same kinds of parts and structures."

"But as far as the size, interconnections and relationships among them, we have lots to learn," says a University of Michigan assistant professor of psychology.

That fact partially explains why "more people have dogs than cats as pets," he said.

"In their natural state, dogs' ancestors lived in social groups where communication skills were very important. We also know that humans, 12-14,000 years ago, started to domesticate dogs for certain traits."

Dogs probably surpass humans with respect to their olfactory and homing abilities, he added.

ALLISON LIKENS dogs to people.

"Some people learn quickly, while others take more time. But eventually they'll get it. A few dogs are a little more, shall we say, hardheaded or



Golden retrievers or German shepherds are primarily used as leader dogs not because those breeds are the most intelligent, says

trainer Ed Lange, but because they're of accommodating size and adapt well to all climates.

stubborn, but they come around.

"No particular breed is an absolutely dumb dog, added Allison, whose club has trained more than 95 percent of all existing dog breeds."

CANINE CREATURES and human ones resemble each other in still other ways, says Lange.

"Every time a dog performs properly, he wants to be praised. It's the same thing as raising a child. Through conditioning, you let them know what's right and wrong."

Dogs' emotions are a subject shied away from by most psychologists and physiologists. But Lange sees evidence every day that dogs have feelings.

Like their masters, dogs vary in the amount of affection they show and require, he says.

"You can see a sadness there when a trainer begins ignoring a dog and the blind person takes over as master," Lange said.

"You see the dog in a state of dejection. He's demoralized and wondering, 'why is my master downing me?'"

We also try to place people with dogs that match their personalities. Dogs, like people, respond differently to loud and soft voices, have slow and fast gait, and are different heights and weights."

LANGE'S FONDEST wish is that dogs could read.

"That would be beautiful," he said.

"But there's no limit to what a dog can learn. One of the biggest mistakes mankind makes is that we underestimate dogs. What you do with your dog determines how intelligent or how much responsibility the dog will assume during its lifetime."

"The person that's at the end of the leash must be smarter than the dog, otherwise that dog's going to outfox you."



Like humans, dogs' brains are divided into right and left hemispheres and, like us, they learn better if given praise and encouragement. Joanne Bennett and Jose A. Rodriguez, try to put that into practice training leader dogs.



Leader Dog directors try to match personalities of a dog and its owner. Edgar Frueggen, man was matched up with Moocher.

Michigan jobs and water may soon be flowing south

By Diane Hofess
special writer

Michigan will sell Great Lakes water to needy southeastern states say Great Lakes research experts. The sale may be 15 to 20 years downstream, but it will happen.

Despite the growing importance of the Great Lakes, federal funding for research and development of the Great Lakes has been drastically reduced since 1981.

For suburban Detroiters and other Michigan residents, diversion of the Great Lakes could mean a decreased likelihood that industries would relocate to Michigan.

The resulting lower-lake levels from diversion would translate into higher prices for shipped goods, a smaller fish population, less water for recreational use and long-term changes in the Great Lakes ecosystem. Shipped goods would cost more because freighters would have to reduce their loads for shallower water.

"YOU MIGHT as well pipe jobs out of the state," said Tom Nalepa, a Great Lakes researcher and marine biologist. "If industries can get the water piped to them, they don't need to come to where the water is."

On the benefit side, diversion would bring revenues into the state from the water sales. How much, though, is unknown.

"I've never seen a price put on the water," said Professor John Bulkeley, who teaches civil engineering at the University of Michigan in Ann Arbor. Bulkeley was one of 40 people who worked on the task force established by former Michigan Governor William Milliken in November 1981. The task force was set up to study the cost of building a conveyor or structure that would transport water from the Great Lakes to the Missouri River Basin.

The task force estimated the project would cost \$10 billion, but they did not work on establishing a water price. "I don't know that anybody has," he said.

ANOTHER GREAT LAKES research scientist, Mike Quigley, said many southwestern states do not have the fresh-water supply they need to support their agricultural, industrial and expanding population needs. So these states are looking to the Great Lakes, which contain 95 percent of the nation's and 20 percent of the world's fresh-water supply, for solutions to their needs.

Dr. Frank Quinn, head of the Lakes Research Group, said, "Diversion won't come about for 15 to 20 years. And when it does depends on the amount of water deficits in Colorado and the Sun Belt mainly (California and Texas) and how fast water is used there."

He said political decisions would also have a bearing on when diversion starts on a large scale.

Some Great Lakes diversions have already taken place. On the Canadian side of the Great Lakes, there were two diversions into Lake Superior. And the state of Illinois has diverted water from Lake Michigan at Chicago to the Mississippi River. The seven other Great Lakes States took Illinois to court for this diversion.



Political decisions about diverting Great Lakes water and decisions whether the resource belongs to the state or the federal government will be made by the end of the century, according to the head of a state task force.

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