

One of Your Dog's Top Abilities – Don't Scold Her for This

They're wired completely differently than we are in how they approach their world. So, to forbid this is to hijack one of their most vital abilities and rob them of essential info about their world. Encourage it instead. There's even a sport — a brilliant bonding activity — to enhance it more.

Reviewed by [Dr. Becker](#)

STORY AT-A-GLANCE

- Researchers in Germany have discovered that dogs create representations (mental pictures) of items they search for by scent
- When the dogs in the study encountered a surprise object rather than an expected object, they hesitated and kept sniffing
- The study results add to a growing body of evidence that dogs have future expectations
- Dogs “lead by their noses” as they explore the world, so it's very important to your pet's mental health to allow her to do lots of sniffing on at least one walk each day
- You can also kick it up a notch by channeling your dog's keen sense of smell and love of sniffing into an activity called K9 nose work

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If you have a dog, you know "the nose knows." Dogs have an excellent sense of smell and can be trained to quickly and accurately sniff out all kinds of things, such as live or dead bodies, drugs, disease and more. But while we all understand the power of the average dog nose, we've been clueless about how dogs recognize or identify the things they smell.

Until now, that is. Scientists at the Max Planck Institute for the Science of Human History and the department for general psychology and cognitive neuroscience at Friedrich Schiller University of Jena in Germany have published a study providing evidence that dogs create mental pictures of what they're searching for when they track a scent trail.¹ Put another way, dogs expect to find a certain thing when they're sent sniffing.

What Did the Researchers Discover During Sniff Tests?

The researchers tested a total of 48 dogs, 25 of which had either police K9 or search and rescue training. The remaining 23 were family dogs with no special training.

In the pretest, two favorite toys (toys they liked to retrieve) were identified for each dog. Then in the actual test, the dogs were put through four trials in which they followed the scent trail of one of their two favorite toys. At the end of the trail, the dogs found either the toy they were expecting to find (the normal condition), or the other one (the

surprise condition or a "violation-of-expectation paradigm" as described by the researchers).

Half the dogs were tested under the normal condition; the other half were given the surprise condition, and their behavior was videotaped during each trial. According to the researchers, in the first trial, the dogs who were given the surprise condition showed hesitation when they reached the unexpected toy, and continued to search with their noses, probably for the toy that had been used to lay the scent trail.

However, in subsequent trials, the dogs showed no hesitation, perhaps because they were rewarded no matter which toy they found, or because the test area still smelled like the toys from previous trials (even though it had been cleaned). According to study director Dr. Juliane Bräuer, the results of the first trial suggest that dogs hold a mental picture of their target when they track a scent, which means they have a solid expectation of what they will find.

Bräuer also found comparisons between the working and family dogs interesting. The K9s and search and rescue dogs retrieved the toys faster than the family dogs in the first trial, which was expected. But by the fourth trial, the two groups were retrieving the toys equally quickly.

Why It's so Important to Let Your Dog Sniff

Dogs are brilliant sniffers by design, and sometimes, pet parents don't truly understand their dog's need to explore the world with their nose. Some dog owners seem in such a hurry to get their walks over with, they don't give their pets a chance to satisfy their urge to sniff their environment.

Here's some excellent insight from animal behaviorist Marc Bekoff, Ph.D. on the potential for sensory deprivation and stress in dogs who aren't allowed adequate sniffing opportunities:

"Being smell-blind can be aversive to dogs. My recommendation is to let dogs sniff; let's not hijack one of their vital connections to the world. Let them sniff to their nose's content when they're tethered on a leash, or when they're walking and hanging out with friends and others and running freely.

*As mentioned, not allowing dogs to exercise their nose and other senses could be a form of sensory deprivation that robs them of information they need to figure out what's happening in their world. Being smell-blind can indeed be stressful to dogs because they need odors and other information to assess what's happening around them."*²

Not every walk you take with your dog has to be a leisurely sniff-fest. But at least once a day, let your canine BFF sniff to his heart's content and feel good that you're letting your dog be a dog!

Making the Most of Your Dog's Talented Nose

Did you know you can channel your dog's keen sense of smell and love of sniffing into an activity you can do together? K9 nose work, also called nose work and scent work, is a sport for dogs and their owners that was created and sanctioned by the National Association of Canine Scent Work (NACSW). The activity is an offshoot of the training professional scent detection dogs ("sniffer dogs") receive. Elements of the training are used in K9 nose work, but for recreational purposes only.

Nose work encourages your dog to use his natural hunting drive and unique talent for picking up scents and locating the source. The training teaches your dog to find one of three scents, wherever you decide to hide it. In nose work competitions, there are four locations involved in searching: interiors, exteriors, containers and vehicles.

K9 nose work isn't an obedience-based activity. Instead, it works with your dog's natural instinct to hunt and track scents. There are few commands given during the activity, and no attention to the owner is required while the dog is working. From the [**K9 Nose Work website**](#):

"In K9 Nose Work, dogs learn how to search for a specific odor or odors and find the source. Dogs start by searching for their favorite food or toy reward hidden in a variety of environments, increasing the challenges and adding new search skills as the dog progresses.

Most people will choose to have their dogs learn to find the target odors used in K9 Nose Work: birch, anise, and clove; those looking to keep it fun searching for food or toy can still have fun and progress in the activity. Once target odors are introduced to the dog, he will search for the odor only and find its source, then get rewarded by his handler with his favorite food or toy reward."

K9 Nose Work Can Be a Great Bonding Experience

Some of the benefits of K9 nose work:³

- Dogs easily burn lots of mental & physical energy doing searches
- Searches can be done anywhere you can take your dog
- No prior training is required and no obedience is needed
- In classes, dogs work one at a time and rest crated or safely in a vehicle between searches, so reactive dogs can enjoy the activity, too
- Shy or fearful dogs build confidence and overactive dogs put their energy into fun searches
- Stronger bond between dog and handler as handler learns to observe, understand and rely upon his dog

Best of all, any dog with a nose can participate in nose work, so you don't have to have a typical sniffer dog (e.g., a Retriever, German Shepherd, or Bloodhound) to get your pet involved in the sport.

Some dog owners have found nose work to be a great supplement to a behavior modification program. Focusing on scent detection can help reactive dogs learn to tolerate the presence of other dogs. It can help shy dogs grow more comfortable with their surroundings, and it encourages distracted dogs to stay on task.

Nose work is also beneficial for senior dogs, dogs recovering from surgery or an injury, dogs with hearing loss or eyesight problems, and retired service, working or competition dogs. It can also provide a great outlet for hyperactive dogs.

For more information, you can visit [**K9 Nose Work**](#) or the [**NACSW**](#) (National Association of Canine Scent Work). You can also search YouTube for K9 nose work videos and see lots of dogs and trainers/owners in action, plus a wide range of training techniques and uses for nose work.

Sources and References

[ScienceDaily March 5, 2018](#)

¹ [Journal of Comparative Psychology, 132\(2\), 189–199](#)

² [Psychology Today, November 7, 2017](#)

³ [K9 Nose Work](#)
